

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

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RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

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RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

JANUARY 1993

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INTRODUCTION

The Research Proposal Quarterly Status Report is published in March, June, September, and December by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR in the previous six months along with the action taken (Initiated, Declined or Withdrawn) on each report.

The report is divided into two parts. The Institution index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. The AFOSR is organized under the Air Force Materiel Command, DCS/Science Technology.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance to science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

KEY TO READING THE DATA

TITLE - The title of the research proposal

INSTITUTION - The organization, (e.d., college/university, company) at which the research will be conducted.

INVESTIGATOR - The Principal Investigators proposing the research.

TYPE - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

MONTHS - The duration of the research proposal.

RECEIVED - The month and year in which the AFOSR received the proposal.

AMOUNT - The funds requested of the AFOSR for support of the research proposal.

STATUS - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposers request.

PROGRAM MANAGER - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

PROPOSAL # - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

INITIATE - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

START DATE - The recommended date for commencement of the research.

TOTAL AMOUNT - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.

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BOLLING AIR FORCE BASE, DC 20332

CC/CD - OFFICE OF THE DIRECTOR

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Col Arthur L. Pavel, Deputy Director 5017

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| Dr Howard Schlossberg | 4906 | | | |
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| Maj Gernot Pomrenke | 4931 | | | |
| Maj Billy Smith | 5011 | | | |

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PART 1

| INSTITUTION | INVESTIGATOR | LAST NAME | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|---|---------------|------------|------------|--------|-----------|--------|------------|
| Advanced Research and Applications Corp | Appel | Lou | | | 93-NE-038 | A | SCHLOSSBER |
| Aerospace Corporation | Bridgeman | Charles | | | 93-MA-035 | A | JONES |
| Air Force Institute of Technology | Bridgman | Charles | | | 93-XO-002 | A | OMENS |
| | | | | | 93-XO-001 | A | OMENS |
| | | | | | 93-XO-004 | A | BOLAND |
| | | | | | 93-XO-005 | A | BOLAND |
| Air Force Weapons Lab | Burnette | Howard | | | 93-MA-064 | A | JACOBS |
| | Mayes | Mary Ann | | | 93-MA-028 | A | SAKELL |
| | | | | | 93-MA-029 | A | SAKELL |
| Air Force Flight Aeronautical Labs | Kimmel | Roger | | | 93-MA-043 | M | SAKELL |
| American Ceramic Society | Holbrook | Paul | | | 93-NC-029 | | PECHEMIK |
| Arizona State University | Jarcolo | Helene | | | 93-NM-031 | | GLASSMAN |
| | Crouch | Peter | | | 93-NM-006 | A | JACOBS |
| | Mayer | James | | | 93-NE-012 | A | WITT |
| | Thakar | Arinal | | | 93-NC-038 | A | LEE |
| Butson University | Pastore | Richard | | | 93-ML-066 | | TANGMEY |
| Birmingham University | Hughes | 4. Jeffrey | | | 93-ML-060 | | RAOOSKI |
| Boston University | Lee | Min-Chang | | | 93-ML-062 | | STOBIE |
| | Sindri | Guido V. | | | 93-ML-079 | | STOBIE |
| | Linsman | Geroge | | | 93-NE-034 | | WEINSTOCK |
| Brandeis University | Lisman | John | | | 93-ML-043 | D | TANGMEY |
| Brighton & Women's Hospital | Doife | Jeremy | | | 93-ML-015 | D | TANGMEY |
| Brown University | Jurakko | Arto | | | 93-NE-052 | | WITT |
| | Jurash | Suzro | | | 93-NA-022 | | JONES |
| | Ahrens | Thomas | | | 93-MA-012 | | LEWIS |
| | Bridges | William | | | 93-NE-144 | | CRAIG |
| | McGill | Thomas | | | 93-NE-027 | | POMRENKE |
| | ACKOY | Vincent | | | 93-NE-123 | | POMRENKE |
| | Psaltis | Demetri | | | 93-NE-091 | | KELLEY |
| | Van de Velde | Eric | | | 93-NE-143 | | CRAIG |
| | Greve | David | | | 93-NE-027 | | JACOBS |
| Carnegie-Mellon University | Skoronski | Marek | | | 93-NE-124 | | POMRENKE |
| | Usherall | Herbert | | | 93-NE-121 | | POMRENKE |
| Catholic University of America | Padayachariou | Dimetrios | | | 93-ML-003 | | STOBIE |
| City College - CUNY | Alfano | Robert | | | 93-NM-034 | | NACHMAN |
| City University of New York | Atoski | Charles | | | 93-NE-109 | | SCHLOSSBER |
| Clark University | Adams | Warren | | | 93-NE-094 | | WEINSTOCK |
| Clemson University | Kowalski | Frank | | | 93-NM-098 | | GLASSMAN |
| Colorado School of Mines | Jefferson | Laurance | | | 93-NE-044 | | SCHLOSSBER |
| Colorado State University | Cotton | William | | | 93-NC-035 | | ERSTFELD |
| | Judek | F. Eumero | | | 93-ML-063 | | STOBIE |
| | Gray | William | | | 93-ML-033 | | HADDAD |
| | Maciel | Gary | | | 93-ML-051 | | STOBIE |
| | Martin | Charles | | | 93-NC-021 | | LEE |
| | Wickas | Pericles | | | 93-NC-012 | A | WILKES |
| | Poore | Audrey | | | 93-NC-055 | | WILKES |
| | | | | | 93-NE-016 | | CRAIG |
| | | | | | 93-NM-048 | A | GLASSMAN |

EXPIRATION DATE 01/01/83
 INSPIRATION NO. 61 OCT 82 - 31 DEC 82
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| INSTITUTION | INVESTIGATOR | PROPOSAL | STATUS | PM NAME |
|---|---------------|----------|--------|------------|
| LAST NAME | FIRST NAME | MIDDLE | | |
| Columbia College | Robinson | Y | | POMRENKE |
| Columbia University | Schwartz | A | | TANGNEY |
| | Berman | | | BERMAN |
| | Unatticharjee | | | RADOSKI |
| | Eisenstein | | | HEDBERG |
| | Wolfe | | | RADOSKI |
| | Sykes | | | DICKINSON |
| Cornell University | Ballantine | | | SCHLOSSER |
| | Cooper | | | ERSTFELD |
| | Isaacson | | | POMRENKE |
| | Lion | | | LEWIS |
| | Hadsen | | | KOZUMBO |
| | Raj | | | ROSENSTEIN |
| | Stons | | | ROSENSTEIN |
| Delbarton University | Cybenko | | | KOZUMBO |
| Dartmouth College | Hudson | | | SUDDARTH |
| | Hughes | | | RADOSKI |
| | Kotz | | | HEDBERG |
| | Abini | | | SUDDARTH |
| District of Columbia University | Hays | | | LEWIS |
| Drexel University | Kennedy | | | KOZUMBO |
| Essex Corporation | Chambers | | | COLLINS |
| Japanese Office of Aero Resch and Develop | Kaufmann | | | HEDBERG |
| FRANKFURT INSTITUTE FOR ANGEWANDTE TEST | Kozalis | | | POMRENKE |
| Florida Institute of Technology | Thursby | | | CRAIG |
| | Jarrell | | | SUDDARTH |
| Florida State University | Krishnamurti | | | STOBIE |
| | Schwartz | | | STOBIE |
| General Electric Co | Jewell | | | WAKSMAN |
| George Mason University | Hintz | | | ROSENSTEIN |
| | Michalski | | | SUDDARTH |
| | Rine | | | WAKSMAN |
| | Berger | | | BARKER |
| | Mott | | | BARKER |
| Georgia Institute of Tech | Rohrbach | | | NACHMAN |
| | Flannery | | | JACOBS |
| Georgia Tech Research Corporation | Zinn | | | WITT |
| | Cohen | | | KELLEY |
| Jordan Research Conferences Inc | Cruickshank | | | BIRKAM |
| | Varble | | | ROSENSTEIN |
| Imperial University | Jacobson | | | WILKES |
| Harvard University | Peter | | | CRAIG |
| Howard University | Kushnaha | | | SCHLOSSER |
| | Raphael | | | NACHMAN |
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| INSTITUTION | INVESTIGATOR | LAST NAME | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|---|------------------|-------------|------------|--------|-----------|--------|------------|
| ALMA STATE UNIVERSITY | Jordan | Mark | | S | 33-NC-065 | A | BALL |
| Illinois Institute of Technology | Collins | Mark | | | 33-NC-006 | A | ROSENSTEIN |
| | Haylo | Hassan | | M | 33-NA-001 | A | MCMICHAEL |
| Indiana University/Bryant Hall | Katson | Charles | | S | 33-NL-076 | | TANGNEY |
| Institute of Mathematical Statistics | Molin | Deborah | | | 33-NM-041 | | SJOGREN |
| Iowa State Univ of Science and Tech | Schmidt | Michael | | M | 33-NM-033 | A | GLASSMAN |
| Johns Hopkins University | Jaydhan | Paul | | J | 33-NC-044 | | BERMAN |
| Kansas State University | Ram | Alexander | | G | 33-NM-020 | A | NACHMAN |
| Knoxville College | Rader | Mark | | | 33-NE-039 | A | BARKER |
| Lehigh University | Heany | James | | C | 33-NE-131 | | POMRENKE |
| | Smith | C R | | | 33-NA-053 | A | FANT |
| | Walker | J | | D | 33-NA-006 | A | FANT |
| Manfield Research Institute | Davis | Paul | | R | 33-NE-076 | | BARKER |
| Matron Electron Devices | Sievals | John | | | 33-NE-050 | A | BARKER |
| Lockheed Missiles & Space Co Inc | Imhof | William | | L | 33-NL-009 | | STOBIE |
| Los Alamos Nat'l Lab--Appl Theor Phys Div | Miller | Warner | | A | 33-NE-010 | A | BARKER |
| MIT -- Lincoln Lab | Cherlin | Daniel | | J | 33-NE-015 | | SCHLOSSER |
| ARC Applied Psychology Unit | Paddelay | Alan | | D | 33-NL-019 | | TANGNEY |
| Massachusetts Institute of Technology | Antonialis | Eletri | | A | 33-NE-103 | | WITT |
| | Aranson | Christopher | | G | 33-NM-044 | A | SUDDARTH |
| | Bruear | Kenneth | | S | 33-NA-016 | A | MCMICHAEL |
| | Ureselhaus | Mildred | | S | 33-NE-102 | A | WEINSTOCK |
| | | Gene | | F | 33-NL-003 | A | BOLAND |
| | Gratzer | Edward | | M | 33-NA-057 | A | FANT |
| | Hastings | Daniel | | E | 33-NA-034 | A | BIRKAN |
| | Ippe | Eric | | D | 33-NL-009 | A | BOLAND |
| | Kleppner | Daniel | | | 33-NE-108 | | SCHLOSSER |
| | Lee | Min-Chang | | | 33-NE-024 | A | KELLEY |
| | | | | | 33-NE-093 | A | KELLEY |
| | | | | | 33-NE-013 | A | BARKER |
| | | | | | 33-NE-077 | A | BARKER |
| | | | | | 33-NA-040 | A | BIRKAN |
| | Martinez-Sanchez | Manuel | | B | 33-NM-016 | A | GLASSMAN |
| | Orlin | James | | 3 | 33-NE-060 | A | WEINSTOCK |
| | Pelloux | Regis | | M | 33-NL-035 | | TANGNEY |
| | Richards | Whitman | | M | 33-NL-005 | A | BOLAND |
| | Tedrow | Paul | | L | 33-NC-036 | A | HEDBERG |
| | Thomas | Edwin | | B | 33-NE-031 | A | POMRENKE |
| | Wallace | John | | | 33-NE-048 | A | WITT |
| | | | | | 33-NL-012 | A | TANGNEY |
| | Henderson | John | | M | 33-NA-052 | A | MCMICHAEL |
| | Koochesfahani | Manoochen | | M | 33-NE-028 | D | KELLEY |
| | Perger | Barren | | F | 33-NE-051 | A | BARKER |
| | Seplen | Bruce | | | 33-NL-036 | A | KOZUMBO |
| | van Kuyk | Frederick | | | 33-NA-042 | A | SAKELL |
| | Rogallo | Bob | | | 33-NA-011 | A | LEWIS |
| | Swealio | Peter | | J | 33-NA-020 | A | TISHKOFF |
| | Bruno | Thomas | | P | 33-NC-032 | A | BERMAN |
| | Casassa | Michael | | | | | |

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| INSTITUTION | INVESTIGATOR | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|---|---------------|------------|--------|-----------|--------|-----------|
| Naval Research Laboratory | Janjy | Carlos | | 93-NA-030 | A | JONES |
| Naval Services Warfare Center | Place | Don | | 93-XD-003 | A | WILKERSON |
| New Jersey Institute of Technology | Shattacharjee | Manish | C | 93-NM-065 | | SJOGREN |
| | Goode | Philip | R | 93-NL-057 | | RADOSKI |
| | Hsu | C T Thomas | | 93-NA-038 | | LEWIS |
| New Mexico Highlands University | Zilic | Djuro | S | 93-NM-035 | | SJOGREN |
| New Mexico Institute of Mining and Tech | Krenatal | Paul | R | 93-NL-014 | A | STOBIE |
| New School for Social Research | Wack | Arlen | | 93-NL-013 | | TANGMEY |
| New York University | Warman | Paul | R | 93-NE-030 | D | KELLEY |
| | Kaufman | Lloyd | | 93-NL-017 | | TANGMEY |
| North Carolina State University | Danks | Robert | T | 93-NM-083 | | JACOBS |
| | Ostervang | Philip | A | 93-NC-002 | A | WILKES |
| North Dakota State University | Joudjouk | Philip | R | 93-NC-066 | | HEDBERG |
| Northeastern University | Chan | Chung | | 93-NE-150 | | BARKER |
| | Jiang | Hua | | 93-NI-011 | A | BOLAND |
| | Manadev | N.V.R. | | 93-NM-066 | | GLASSMAN |
| Northeastern University | Achenbach | Jan | D | 93-NE-055 | A | WEINSTOCK |
| | McKoon | Sail | | 93-NL-013 | | TANGMEY |
| | Pinsky | Mark | | 93-NM-051 | A | SJOGREN |
| | Ackee | Rodney | A | 93-NC-008 | A | BURGGRAF |
| Pak Ridge National Lab | Feth | Learence | L | 93-NL-021 | | TANGMEY |
| Paho State Univ Research Foundation | Forest | W. | S | 93-NM-001 | | NACHMAN |
| Paho State University | Forest | Gregory | M | 93-NM-072 | | NACHMAN |
| | Rich | J. William | J | 93-NC-046 | | BERMAN |
| Pennsylvania State University | Hauenstein | Robert | J | 93-NE-126 | | POMRENKE |
| | Lachmiller | Robert | L | 93-NL-074 | | KOZUMBO |
| | Kalio | Gilbert | J | 93-NC-001 | | WILKES |
| | Kafe | Lionel | M | 93-NC-063 | | BURGGRAF |
| | Song | J | J | 93-NE-056 | | POMRENKE |
| Old Dominion University | Ishibashi | Isao | L | 93-NA-037 | | LEWIS |
| | Jackson | Thomas | | 93-NM-013 | | NACHMAN |
| Optical Society of America | Quinn | Jarus | | 93-NE-017 | A | SCHLOSSER |
| Oregon Graduate Institute | Leen | Todd | K | 93-NM-089 | | SUDDARTH |
| Oregon Graduate Institute of Sci & Tech | Moody | John | K | 93-NM-045 | | SUDDARTH |
| Pennsylvania State University | Jeffrey | Richard | K | 93-NE-094 | | WITT |
| | Blanco | Patricia | A | 93-NC-052 | | HEDBERG |
| | Culter | Paul | H | 93-NE-079 | | BARKER |
| | Harrison | Ian | R | 93-NC-039 | A | ERSTFELD |
| | Micci | Michael | | 93-NA-032 | A | BIRKAM |
| | Santivice | Domenic | A | 93-NA-056 | A | TISHKOFF |
| | Kuo | Spencer | | 93-NE-018 | A | BARKER |
| | Kwei | F. | K | 93-NC-005 | | LEE |
| | Myerson | Allan | S | 93-NA-018 | | LEWIS |
| | Aksay | Ilhan | S | 93-NC-034 | A | ERSTFELD |
| Princeton University | Choudhri | Edgar | Y | 93-NA-033 | A | BIRKAM |
| | Kung | Sun-fuang | | 93-NM-033 | | SUDDARTH |
| | Orszag | Steven | A | 93-NA-008 | A | MCMICHAEL |
| | Paor | H. Vincent | | 93-NM-053 | | SJOGREN |

| INSTITUTION | INVESTIGATOR | LAST NAME | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|--|--------------|-------------|------------|--------|-----------|--------|------------|
| Durham Research Foundation | Junger | Robert | | | 93-NE-127 | A | POMRENKE |
| | Vice | Jonn | | | 93-NA-004 | A | GLASSMAN |
| Durham University | Fleeter | Stanford | | | 93-NA-054 | A | TISHKOFF |
| | Atkinson | Michael | | | 93-NE-081 | A | WITT |
| Zensselaer Polytechnic Institute | Flaherty | Joseph | | | 93-NA-019 | A | JACOBS |
| | | | | | 93-NA-084 | | JACOBS |
| | Fark | Richard | | | 93-NE-113 | | SCHLOSSBER |
| | Lim | Chuan | | | 93-NA-062 | | NACHMAN |
| | MacCrone | Robert | | | 93-NC-022 | D | ERSTFELD |
| | Witchnell | Jonn | | | 93-NA-043 | | GLASSMAN |
| | Schomatter | Leo | | | 93-NE-088 | | WITT |
| | Zhang | Xi-Cheng | | | 93-NE-114 | A | SCHLOSSBER |
| | | | | | 93-NE-134 | | SCHLOSSBER |
| | | | | | 93-NE-135 | | TANGMEY |
| Research Development Corporation | Laddo | Jonn | | | 93-NA-044 | A | GLASSMAN |
| | Jennils, Jr. | Jonn | | | 93-NA-018 | A | SCHLOSSBER |
| Rice University | Young | James | | | 93-NE-136 | A | SJOGREN |
| | Jorek | Stan | | | 93-NA-069 | | COLLINS |
| Rohm Air Development Center | Madani | Itzhak | | | 93-NA-046 | | GLASSMAN |
| | Kosler | Eileen | | | 93-NA-075 | | BALL |
| Rutgers - The State University | Roberts | Fred | | | 93-NA-082 | D | BARKER |
| | Klein | Lisa | | | 93-NC-020 | | CRAIG |
| Rutgers, The State University | Lepowitz | Joel | | | 93-NE-053 | A | SUDDARTH |
| | Lu | Yicheng | | | 93-NA-081 | | TANGMEY |
| SPIE - International Soc for Optical Engng | Strawderman | William | | | 93-NA-001 | | HEBERG |
| | Montanye | J. Terrence | | | 93-NA-016 | | TANGMEY |
| TRI International | Schwitt | Robert | | | 93-NA-026 | | TANGMEY |
| | Jewins | Alan | | | 93-NA-055 | | KOZUMBO |
| Schepens Eye Research Institute | Arend | Laurence | | | 93-NA-033 | | GLASSMAN |
| | Wright | Jonn | | | 93-NA-036 | A | DICKINSON |
| Southeastern Oklahoma St U-Phys Sci Dept | Kennington | Jeffery | | | 93-NA-011 | A | COLLINS |
| | Stump | Brian | | | 93-NA-031 | A | SAKELL |
| St Michael Hospital | Johnson | Walter | | | 93-NA-010 | A | POMRENKE |
| | Bayanoff | Donald | | | 93-NA-005 | A | JONES |
| Stanford University | Bates | Clayton | | | 93-NA-031 | A | KELLEY |
| | Cannon, Jr | Robert | | | 93-NA-046 | | NACHMAN |
| State University of New York | Chang | Fu-Kuo | | | 93-NE-092 | A | JACOBS |
| | Chu | Steven | | | 93-NA-085 | | WEINSTOCK |
| Stevens Institute of Technology | Golub | Gene | | | 93-NA-012 | A | BERMAN |
| | Kapitulnik | Thomas | | | 93-NA-027 | A | JONES |
| Syracuse University | Lynn | Richard | | | 93-NE-090 | | KELLEY |
| | Chiang | Fu-Pan | | | 93-NA-061 | A | STOBIE |
| University of New York | Atcalf | Harold | | | 93-NE-008 | A | BARKER |
| | Malcek | Chris | | | 93-NA-077 | A | SJOGREN |
| University of Technology | Maril | Vittorio | | | 93-NA-010 | A | BOLAND |
| | Wanda | Henry | | | | | |

STATUS = ACCEPTED, *U* = UNDER REVIEW, *W* = WITHDRAWN

| INSTITUTION | INVESTIGATOR | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|-----------------------------------|---------------|------------|--------|-----------|--------|------------|
| Texas A and A Research Foundation | Ailton | Jay | R | 93-NM-021 | A | NACHMAN |
| | Althelt | Thomas | T | 93-NL-004 | | STOBIE |
| | Shenille | Wayne | K | 93-NL-027 | | TANGNEY |
| | Prattin | Chiraf | K | 93-NM-090 | | SUDDARTH |
| Texas A and M University | Ware | Carol | | 93-NI-001 | A | BOLAND |
| | Kristiansen | Asyne | W | 93-NE-061 | A | BARKER |
| | Zieher | Klaus | | 93-NE-062 | A | BARKER |
| | Keiley | Paul | L | 93-NE-106 | | SCHLOSSBER |
| Tennessee University | Jeelani | Shaik | | 93-NA-024 | | JONES |
| | Chapen | Russell | A | 93-NE-041 | | CRAIG |
| | Judhu | Munira | | 93-NA-013 | | LEWIS |
| | Calvert | Paul | D | 93-NC-043 | | HEDBERG |
| Univ of Alabama | Falco | Charles | W | 93-NE-042 | A | SCHLOSSBER |
| | Genrels | Tom | | 93-NL-023 | A | RADOSKI |
| | Khitrova | Galina | | 93-NE-110 | A | SCHLOSSBER |
| | Peterson | Mary | A | 93-NL-022 | A | TANGNEY |
| Univ of Arkansas | Peymanpourian | Nasser | | 93-NE-020 | | KELLEY |
| | R. Schriber | K. Gallosy | | 93-NE-096 | | WITT |
| | Saliba | Gregory | J | 93-NE-113 | | POMRENKE |
| | Janos | Martin | S | 93-NL-045 | | COLLING |
| Univ of California, Berkeley | Hirdsall | Charles | | 93-NE-063 | | BARKER |
| | Falcone | Roger | | 93-NE-105 | | SCHLOSSBER |
| | du | Chenming | | 93-NE-064 | | SMITH |
| | Lau | Kam | T | 93-NE-154 | | CRAIG |
| Univ of California, Irvine | Polac | Eliah | | 93-NM-043 | A | JACOBS |
| | Seykally | Richard | J | 93-NC-047 | | BERMAN |
| | Saito | John | S | 93-NE-083 | | WITT |
| | Strain | John | | 93-NE-155 | | CRAIG |
| Univ of California, Los Angeles | Jenford | Gregory | | 93-NM-008 | A | JACOBS |
| | Livernia | Enrique | A | 93-NE-060 | A | BARKER |
| | Jynes | Robert | J | 93-NC-028 | | PECHENIK |
| | Esaner | Sadik | C | 93-NE-097 | | WEINSTOCK |
| Univ of California, San Diego | Kussel | Andrew | C | 93-NE-147 | | CRAIG |
| | Li | Charles | | 93-NE-152 | | CRAIG |
| | Friedmann | Peretz | C | 93-NE-156 | | CRAIG |
| | no | Chih-Ming | W | 93-NE-029 | | POMRENKE |
| Univ of California, Riverside | Lin | Anthony | T | 93-NE-083 | | WITT |
| | Lunanne Jr | Yevilla | C | 93-NA-050 | A | JONES |
| | Lunanne Jr. | Yevilla | C | 93-NA-055 | | MCMICHAEL |
| | Menca | Rajesh | K | 93-NE-080 | | BARKER |
| Univ of California, San Diego | Cristian | Flaviu | | 93-NE-069 | | BARKER |
| | Footo | Stephen | | 93-NE-070 | | BARKER |
| | Kadtke | James | | 93-NE-011 | A | BARKER |
| | | | | 93-NL-040 | | KOLUNBO |
| | | | | 93-NM-068 | A | SUDDARTH |
| | | | | 93-NL-048 | | MADDAO |
| | | | | 93-NM-067 | | NACHMAN |

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|-----------------------------------|--------------|------------|--------|-----------|--------|------------|
| Univ of California, Santa Barbara | Kusnel | Andrew | C | 93-MC-025 | A | ERSTFELD |
| | Ascholson | David | D | 93-MC-042 | | ERSTFELD |
| | Goldren | Larry | A | 93-ME-095 | | WEINSTOCK |
| | Wanga | Fred | F | 93-ME-149 | | CRAIG |
| Univ of Central Florida | Slison | Richard | D | 93-MC-043 | A | PECHENIK |
| | Richardson | Martin | P | 93-ME-024 | A | TANGNEY |
| | Sah | H. | P | 93-ME-043 | | SCHLOSSBER |
| | Silvest | William | T | 93-ME-107 | | KELLEY |
| Univ of Chicago | Stegeman | George | J | 93-ME-153 | | SCHLOSSBER |
| | Sloener | Steven | A | 93-MC-064 | | CRAIG |
| | Simpson | John | A | 93-MC-059 | | ERSTFELD |
| | Van Cauter | Eve | H | 93-ME-010 | A | RADOOSKI |
| Univ of Cincinnati | Garratt | Patrick | T | 93-MC-079 | | HADDAD |
| | Maed | Awatef | T | 93-MC-002 | | WAKSMAN |
| | Hubbard | Arthur | B | 93-MC-026 | | SAXELL |
| | Kosel | Peter | Z | 93-ME-004 | A | WILKES |
| Univ of Colorado | Jekhar | Dana | D | 93-ME-023 | | BOLAND |
| | Anderson | William | D | 93-MC-053 | | ROSENSTEIN |
| | Alusan | Shelly | J | 93-ME-041 | | SCHLOSSBER |
| | Couley | Kenneth | J | 93-ME-099 | | STOBIE |
| Univ of Colorado at Denver | Douglas | Robert | R | 93-ME-130 | A | KOZUMBO |
| | Federstein | Fred | R | 93-MC-063 | | WEINSTOCK |
| | Glover | Stephen | W | 93-MC-068 | | POMRENKE |
| | Leone | Marvin | A | 93-ME-122 | | BERMAN |
| Univ of Connecticut | Lutjes | John | J | 93-MC-044 | | POMRENKE |
| | Nesbitt | David | J | 93-ME-049 | | FANT |
| | Wagner | Kevin | E | 93-MC-092 | | CRAIG |
| | Jabrader | Robert | V | 93-MC-056 | | BERMAN |
| Univ of Dayton | ear-Shalom | Yaakov | E | 93-MC-038 | | SJOGREN |
| | Srinivasan | A | E | 93-ME-047 | | ERSTFELD |
| | Javison | Joseph | R | 93-MC-001 | A | GLASSMAN |
| | Schroeder | Austin | E | 93-ME-074 | | JONES |
| Univ of Edinburgh | Fate | John | R | 93-MC-050 | | YOUNG |
| | Reynolds | Scott | D | 93-MC-080 | | SJOGREN |
| | Smith | Robert | A | 93-ME-002 | | WAKSMAN |
| | Sorkin | Michael | O | 93-MC-054 | | LEE |
| Univ of Georgia | Duncan | Anne | U | 93-MC-024 | D | KOZUMBO |
| | Summers | Wu-Pei | | 93-MC-040 | | TANGNEY |
| | Su | J. Gray | | 93-ME-112 | | BERMAN |
| | Eden | Nasrallah | | 93-MC-024 | | HEBERG |
| Univ of Houston | Stewadi | Martha | | 93-ME-072 | | BURGGRAF |
| | Gillette | Ibrania | | 93-MC-040 | | SCHLOSSBER |
| | Haji | Gavan | | 93-ME-118 | | JACOBS |
| | Lintern | Gregory | | 93-MC-007 | | HADDAD |
| Univ of Illinois | Stallan | | | 93-ME-085 | | POMRENKE |
| | | | | | | TANGNEY |
| | | | | | | MITT |
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| INSTITUTION | LAST NAME | INVESTIGATOR | FIRST NAME | MIDDLE | PROPOSAL | STATUS | PM NAME |
|------------------------------------|-----------------|--------------|--------------|--------|-----------|--------|-----------|
| Univ of Kentucky | Trenary | | Michael | | 33-NC-061 | | ERSTFELD |
| | Long | | Li-Tin | | 33-NL-043 | | KOZUMSO |
| | Aggour | | M S | | 33-WA-004 | | LEWIS |
| | Intan | | Stuart | S | 33-WM-058 | | NACHMAN |
| Univ of Maryland | Granatstein | | Victor | L | 33-NE-032 | A | BARKER |
| | | | | | 33-NE-067 | | BARKER |
| Univ of Maryland, Baltimore Campus | Rosenfeld | | Azriel | | 33-WM-087 | | SJOGREN |
| | Dayden | | L. Michael | | 33-NC-023 | | LEE |
| | Menyuk | | Curtis | P | 33-WM-037 | | NACHMAN |
| | Pollen | | Daniel | A | 33-NL-054 | | TANGNEY |
| | Schwartz | | William | J | 33-NL-028 | | HADDAD |
| | Gonason | | John | M | 33-WM-061 | | SUDDARTH |
| | Karasz | | Frank | | 33-NC-053 | | LEE |
| | Utgoff | | Paul | | 33-WM-056 | | WAKSMAN |
| | Doelf | | Beverly | D | 33-WM-023 | | WAKSMAN |
| | Bernstein | | Dennis | S | 33-WM-073 | | JACOBS |
| | Glickrist | | Brian | E | 33-NL-050 | | STOBIE |
| | Wilgenbach | | Ronald | M | 33-NE-072 | | BARKER |
| Univ of Maryland, Baltimore County | Kharjonekar | | Prasad | P | 33-WM-075 | | JACOBS |
| | Killeen | | Flaothy | L | 33-NL-052 | | STOBIE |
| Univ of Massachusetts | Kand | | Stephen | C | 33-NE-104 | | SCHLOSSER |
| | Winful | | Herbert | G | 33-NE-146 | | CRAIG |
| | Chou | | Steppen | Y | 33-NE-026 | | WITT |
| | Conan | | Philo | I | 33-NE-123 | | POMRENKE |
| | Knill | | David | C | 33-NL-003 | A | TANGNEY |
| | Rosen | | J. | P | 33-WM-014 | A | GLASSMAN |
| | Trefik | | Ahmed | H | 33-WM-070 | A | SJOGREN |
| | Hindel | | Peter | | 33-NE-047 | D | WITT |
| | Sivaprasad | | Kondaquata | | 33-NL-006 | A | BOLAND |
| | Brueck | | Steven | R | 33-NE-058 | | SCHLOSSER |
| | Malloy | | Kevin | J | 33-NE-117 | | SCHLOSSER |
| | Schmalloglu | | Edl | | 33-NE-009 | A | BARKER |
| Univ of North Carolina | Weiser | | Martin | M | 33-NC-060 | | PECHENIK |
| | Kisselav | | Fouad | E | 33-NE-151 | | CRAIG |
| | Michalawicz | | Zbigniew | | 33-WM-046 | | GLASSMAN |
| | Vainberg | | Boris | P | 33-WM-022 | | NACHMAN |
| Univ of Notre Dame | Perad | | Wolfgang | | 33-NE-120 | | POMRENKE |
| | Donnelly | | Russell | J | 33-WA-014 | | MCMICHAEL |
| Univ of Oregon | | | | | 33-NE-033 | D | WEINSTOCK |
| | | | | | 33-WM-031 | | WAKSMAN |
| Univ of Pennsylvania | Jinsbert | | Matthew | L | 33-WM-061 | | BERMAN |
| | O'Leary | | William | P | 33-NC-061 | | JONES |
| | Ponte-Castaneda | | Pedro | | 33-WA-021 | | SUDDARTH |
| Univ of Pittsburgh | Schwaber | | James | | 33-WM-080 | A | POMRENKE |
| | Choyce | | Dolfan | J | 33-NE-133 | | POMRENKE |
| | Furman | | Joseph M. R. | | 33-NL-047 | | COLLINS |
| | Moore | | Robert | Y | 33-WM-063 | | HADDAD |
| Univ of Rochester | Donaldson | | William | P | 33-NE-141 | | BARKER |
| | Hall | | Dennis | G | 33-NE-132 | | POMRENKE |

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|---------------------------------------|--------------|------------|-------------|--------|-----------|--------|------------|
| Univ of Scranton | J. J. J. J. | Scoblewski | Rubin | G | 33-NE-098 | A | WEINSTOCK |
| | | Univacchio | Vito | | 33-MI-002 | A | BOLAND |
| | | Danberry | Ujorn | | 33-NM-003 | A | GLASSMAN |
| | | Jomardzeli | J. A. | | 33-NA-015 | | MEMICHAEL |
| Univ of Southern Cal -- School of Eng | J. J. J. J. | Jomardzeli | Jean-Pierre | | 33-NA-033 | A | LEWIS |
| | | Sardet | Jan | | 33-NA-013 | | BYRKAN |
| Univ of Southern California | J. J. J. J. | Crain | Keith | | 33-NE-003 | | CRAIG |
| | | Jenkins | Anupam | P | 33-NE-037 | | POMRENKE |
| Univ of Surrey | J. J. J. J. | Aschukir | E | | 33-NA-043 | | SAKELL |
| | | Muntz | William | P | 33-NC-033 | | LEE |
| Univ of Tennessee | J. J. J. J. | dear | Gordon | | 33-NC-033 | | KOZUMBO |
| | | Glosson | Idor | | 33-NE-074 | | BARKER |
| Univ of Texas | J. J. J. J. | Alekoff | J. Reese | | 33-NE-063 | A | BARKER |
| | | Reich | Clifford | A | 33-NE-065 | | DICKINSON |
| Univ of Toledo | J. J. J. J. | Frühlich | Patrick | | 33-NM-030 | A | GLASSMAN |
| | | Jaillet | Bruce | | 33-NM-010 | | WAKSMAN |
| Univ of Virginia | J. J. J. J. | Porter | Robert | K | 33-NE-018 | | TANGNEY |
| | | Young | Henry | J | 33-NE-006 | | SCHLOSSBER |
| Univ of Wisconsin | J. J. J. J. | Armetraut | Peter | 9 | 33-NE-078 | | BARKER |
| | | Doitz | Jan | J | 33-NE-078 | | TANGNEY |
| Univ of Washington | J. J. J. J. | Jova | John Mark | | 33-NA-051 | A | LEWIS |
| | | Marjan | Cornelius | O | 33-NM-073 | | NACHMAN |
| Univ of Western Ontario | J. J. J. J. | Menaker | Michael | K | 33-NE-025 | A | HADDAD |
| | | Moore | Jenniss | R | 33-NE-003 | | JONES |
| Univ of Wisconsin | J. J. J. J. | Proffitt | Mercedes | T | 33-NE-056 | | TANGNEY |
| | | Richards | Ellis | | 33-NE-145 | | RADOOSKI |
| Univ of Washington | J. J. J. J. | Loe | John | A | 33-NE-037 | A | CRAIG |
| | | Went | William | O | 33-NA-045 | | ROSENSTEIN |
| Univ of Wisconsin | J. J. J. J. | Criminala | Thomas | A | 33-NE-067 | | MEMICHAEL |
| | | Furness | Thomas | R | 33-NE-071 | | TANGNEY |
| Univ of Wisconsin | J. J. J. J. | Jarboe | J. J. A. | | 33-NE-025 | A | BARKER |
| | | Mitchell | Richard | A | 33-NM-032 | | KELLEY |
| Univ of Wisconsin | J. J. J. J. | Johnson | Daniel | C | 33-NM-015 | | SJOGREN |
| | | Kawar | Chun | C | 33-NE-014 | A | NACHMAN |
| Univ of Wisconsin | J. J. J. J. | Lin | Michael | E | 33-NA-009 | | KELLEY |
| | | Plesna | John | E | 33-NE-075 | | LEWIS |
| Univ of Wisconsin | J. J. J. J. | Scharrer | Michael | | 33-NE-133 | | BARKER |
| | | Moisan | Jeanne | M | 33-NE-053 | | KELLEY |
| Univ of Wisconsin | J. J. J. J. | Shreeve | Kent | L | 33-NE-032 | | HEDEBERG |
| | | Miller | John | P | 33-NE-054 | | STOBIE |
| Univ of Wisconsin | J. J. J. J. | Wickso | Max | | 33-NE-101 | A | WEINSTOCK |
| | | Junzburger | Craig | O | 33-NM-011 | | WEINSTOCK |
| Univ of Wisconsin | J. J. J. J. | Rogers | Chin | S | 33-NA-026 | A | JACOBS |
| | | Hsu | Chin | S | 33-NM-008 | | JONES |
| Univ of Wisconsin | J. J. J. J. | Kuzyk | Mark | M | 33-NE-026 | A | BOLAND |
| | | | | | 33-NE-030 | | JACOBS |
| Univ of Wisconsin | J. J. J. J. | | | | 33-NE-062 | | LEE |
| | | | | | | | LEE |

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|------------------------------------|----------------|------------|--------|-----------|--------|------------|
| Washington University | Murnane | Katherine | | 93-WF-053 | A | SCHLOSSER |
| | Pedders | Peter | A | 93-WF-111 | | SCHLOSSER |
| | Archavac | Robert | R | 93-WF-031 | | BERMAN |
| | Diary | Shankar A. | L | 93-WF-143 | A | CRAIG |
| Wayne State University | Stacy | Jane | A | 93-WF-007 | A | ROSENSTEIN |
| | Barnard | Robert | D | 93-WF-009 | A | JACOBS |
| | Li | Deiping | | 93-WF-025 | A | JACOBS |
| | Wenger | Lowell | | 93-WF-007 | A | JACOBS |
| West Virginia University | Fink | Deifu | | 93-WF-100 | | WEINSTOCK |
| | Lai | Hong-Jian | | 93-WF-017 | | NACHMAN |
| | Zhang | Cun-Yuan | | 93-WF-005 | | GLASSMAN |
| | Alavi | Yousef | | 93-WF-057 | | GLASSMAN |
| Western Michigan University | Landis | Dayne | G | 93-WF-054 | | NACHMAN |
| | Cardar | Michael | | 93-WF-037 | | KOZUMBO |
| | Kluin | Michael | W | 93-WF-013 | | WILKES |
| | | | | 93-WF-021 | | POMRENKE |
| Western Washington University | Pryoutnikowicz | Ryszard | J | 93-WF-007 | A | BOLAND |
| | Lin | Seng | C | 93-WF-140 | | WEINSTOCK |
| | Waisnasham | Krisna | | 93-WF-023 | | JONES |
| | Wyllison | L. J. | | 93-WF-082 | | WITT |
| Yale University | Wrenfira | K. R. | S | 93-WF-035 | | POMRENKE |
| | Greenivassan | K. R. | | 93-WF-052 | | SUDDARTH |
| | | K. R. | R | 93-WF-017 | | MCMICHAEL |
| | | K. R. | N | 93-WF-048 | A | MCMICHAEL |
| Yale University School of Medicine | Van den Pol | Anthony | N | 93-WF-025 | A | HADDAD |
| | Howard | Ian | S | 93-WF-029 | | COLLINS |

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|---|--------------|-----------------------------------|---|------------------------------------|
| INVESTIGATION OF THE PHYSICS OF SUPERSONIC JETS AND TURBULENT BOUNDARY LAYERS AT HIGH REYNOLDS NUMBERS California Institute of Technology | Wallo | N 36 23/10/92 \$997,000 | A MCNICHAE 93-NA-001 | \$325,000 01/02/93 \$997,000 |
| AN INVESTIGATION OF DELIQUE STICK/BOUNDARY LAYER INTERACTION COMPTEL Univ of Cincinnati | Wamef | R 12 23/10/92 \$55,527 | SAKELL 93-NA-002 | |
| INFLUENCE OF MICROSTRUCTURE ON THE DYNAMIC MACRO-BEHAVIOR OF A MULTIPHASE PARTICULATE MATERIAL District of Columbia University | Wamef | N 36 26/10/92 \$54,836 | LEWIS 93-NA-003 | |
| INFLUENCE OF MICROSTRUCTURE ON THE DYNAMIC MACRO-BEHAVIOR OF A MULTIPHASE PARTICULATE MATERIAL Univ of Maryland | W S | N 36 26/10/92 \$176,767 | LEWIS 93-NA-004 | |
| THEORETICAL INVESTIGATION OF PROCESSES RELATED TO DYNAMIC STALL AND CONTROL Lehigh University | Walter | N 36 02/11/92 \$261,273 | A FANT 93-NA-006 | \$92,230 15/02/93 \$261,273 |
| VAPOR TRANSPORT IN UNSATURATED SOIL Cornell University | Leonard | N 36 02/11/92 \$339,207 | LEWIS 93-NA-007 | |
| NUMERICAL STUDIES OF UNSTEADY COMPRESSIBLE TURBULENT SHEAR FLOWS Princeton University | Steven | N 36 02/11/92 \$543,739 | A MCNICHAE 93-NA-008 | \$149,950 01/04/93 \$595,271 |
| SURFACE DAMAGE AND SCALE EFFECTS ON THE MECHANICAL BEHAVIOR OF DISCONTINUITIES IN ROCK Univ of Wisconsin | Michael | N 36 02/11/92 \$187,000 | LEWIS 93-NA-009 | |
| A STUDY OF FLUID PROBLEMS REQUIRING A DIRECT PARTICLE SIMULATION Stanford University | Donald | R 30 13/11/92 \$259,922 | A SAKELL 93-NA-010 | \$59,964 01/04/93 \$259,922 |

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|--|---------------------------------------|--------------|-----------------------------------|---|------------------------------------|
| GEOTECHNICAL BOARD CORE SUPPORT | National Academy of Sciences | Smellie | R 29 16/11/92 \$46,667 | A LEWIS 93-NA-011 | \$11,667 01/03/93 \$46,667 |
| DYNAMIC TENSIONAL FAILURE IN ROCK | California Institute of Technology | Andrews | N 36 16/11/92 \$239,103 | LEWIS 93-NA-012 | |
| MICRO-STRUCTURE IN PARTICULATE MEDIA - A LATTICE TYPE APPROACH AND ITS VALIDATION | Univ of Arizona | Judhu | N 36 16/11/92 \$296,641 | LEWIS 93-NA-013 | |
| TURBULENCE MEASUREMENTS & MICROINSTRUMENTATION IN HIGH-REYNOLDS-NUMBER FLOWS OF HELIUM I. HELIUM II & WATER (PART 1) | Univ of Oregon | Donnelly | N 24 16/11/92 \$520,370 | MCMICHAEL 93-NA-014 | |
| INTERSCALE INTERACTIONS IN TURBULENT FLOWS | Univ of Southern Cal -- School of Eng | Domaradzki | N 36 17/11/92 \$427,178 | MCMICHAEL 93-NA-015 | \$81,201 01/03/93 \$260,262 |
| DEVELOPMENT OF MICRO-MACHINED SENSORS FOR FLUID FLOWS | Massachusetts Institute of Technology | Breger | N 36 17/11/92 \$260,262 | A MCMICHAEL 93-NA-016 | |
| TURBULENCE MEASUREMENTS & MICROINSTRUMENTATION IN HIGH-REYNOLDS-NUMBER FLOWS OF HELIUM I. HELIUM II AND WATER (PART 3) | Yale University | Greenkavan | N 24 17/11/92 \$344,337 | MCMICHAEL 93-NA-017 | |
| SOIL POLLUTION MODELLING USING LATTICE MODELS OF CHEMICAL TWO-PHASE FLOW IN POROUS MEDIA | Polytechnic University | Myerson | N 36 17/11/92 \$281,788 | LEWIS 93-NA-018 | \$199,636 01/03/93 \$199,636 |
| COMPREHENSIVE INVESTIGATION OF LOW-AND HIGH-POWER ARCJET OPERATION | Univ of Southern California | Freid | N 24 18/11/92 \$440,148 | A BIRKAN 93-NA-019 | |

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|---|-----------------------|-----------------------------------|---|------------------------------------|
| THERMOPHYSICAL PROPERTIES OF SUPERCRITICAL JET FUELS National Inst. of Standards & Technology | Bruno Thomas | N 36 18/11/92 \$559,500 | TISHKOFF 93-NA-020 | |
| THE EFFECT OF MICRO-INSTABILITIES ON THE EFFECTIVE BEHAVIOR OF COMPOSITE MATERIALS Univ of Pennsylvania | Conce-Castaneda Pedro | R 36 19/11/92 \$267,871 | JONES 93-NA-021 | |
| MICROMECHANICS OF HIGH-TEMPERATURE DEFORMATION AND FRACTURE IN CARBON-CARBON COMPOSITES Ipsen University | Suresh Sabra | N 36 18/11/92 \$420,000 | JONES 93-NA-022 | |
| PROGRESSIVE DAMAGE OF LAMINATED ORTHOTROPIC AND ANISOTROPIC PLATES Flight Materials Research | Tan Seng | N 36 18/11/92 \$272,359 | JONES 93-NA-023 | |
| HIGH TEMPERATURE CHARACTERIZATION OF CONTINUOUS FIBER REINFORCED CERAMIC MATRIX COMPOSITES Purdue University | Snijk Jeylani | N 36 18/11/92 \$425,417 | JONES 93-NA-024 | \$175,000 01/03/93 \$270,000 |
| HIERARCHICAL ADAPTIVE MODELLING Univ of Virginia | Amend | N 36 19/11/92 \$270,000 | A JONES 93-NA-025 | \$169,516 01/04/93 \$252,950 |
| ELECTRO-MECHANICAL MODELING OF THE DYNAMICS OF ACTIVE CONTROL SYSTEMS BASED ON AN IMPEDANCE APPROACH Virginia Polytechnic Inst & State Univ | Grado Rogers | N 36 19/11/92 \$252,358 | A JONES 93-NA-026 | \$200,000 01/03/93 \$300,000 |
| LOAD TRANSFER, INTERFACE CHARACTERIZATION, & TOUGHENING MECHANISM OF COMPOSITES State University of New York | Fu-Pen Chiang | N 36 19/11/92 \$300,000 | A JONES 93-NA-027 | \$15,000 01/12/92 \$15,000 |
| PROVIDE COMPUTER SUPPORT ON AFML GRAY 2 AIR Force Weapons Lab | Mates Mary Ann | N 09 19/11/92 \$15,000 | A SAKELL 93-NA-028 | |

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|--|--------------|-----------------------------------|---|------------------------------------|
| PROVIDE COMPUTER SUPPORT ON AVAL CRAY 2 | | | | |
| Air Force Weapons Lab | Mages | N 09 20/11/92 \$20,000 | A SARELL 93-NA-029 | \$20,000 01/12/92 \$20,000 |
| MECHANICS OF COMPOSITE MATERIALS | | | | |
| Naval Research Laboratory | Sanjay | N 12 25/11/92 \$60,000 | A JONES 93-NA-030 | \$60,000 01/07/93 \$60,000 |
| MODELLING AND CONTROL OF MULTI-LINK FLEXIBLE ARTICULATED STRUCTURES | | | | |
| Stanford University | Cannon, Jr | N 30 30/11/92 \$319,999 | A JONES 93-NA-031 | \$250,000 01/04/93 \$319,999 |
| LIQUID ROCKET MOTOR COMBUSTION STABILITY USING COAXIAL INJECTORS AND SUPERCRITICAL PROPLET COMBUSTION AND DYNAMICS | | | | |
| Pennsylvania State University | Wicci | N 24 30/11/92 \$244,171 | A BIRKAM 93-NA-032 | \$244,171 01/01/93 \$244,171 |
| INVESTIGATIONS OF THE CRITICAL IONIZATION VELOCITY (CIV) PHENOMENON IN SPACE | | | | |
| Princeton University | Condeira | N 24 30/11/92 \$243,584 | A BIRKAM 93-NA-033 | \$243,584 01/02/93 \$243,584 |
| PARTICLE-IN-CELL AND MONTE CARLO MODELLING OF ADVANCED PLASMA THRUSTERS | | | | |
| Massachusetts Institute of Technology | Justings | N 24 30/11/92 \$449,167 | A BIRKAM 93-NA-034 | \$280,089 01/08/93 \$280,089 |
| RESEARCH ON OPTICS AND MICROELECTRONICS THIN FILM RELIABILITY | | | | |
| Aerospace Corporation | | N 12 02/12/92 \$100,000 | A JONES 93-NA-035 | \$100,000 01/01/93 \$100,000 |
| PROPOSED EXPERIMENTAL WORK AT THE U.S. NAVY RESEARCH LABORATORY'S RECONSTRUCTIBLE SPACECRAFT HOST FOR ATTITUDE AND POINTING EXPER... | | | | |
| Howard University | Salmon | N 03 02/12/92 \$3,900 | A WU 93-NA-036 | \$3,900 15/12/92 \$3,900 |
| MICROMECHANICAL STUDY OF GRANULAR MATERIALS BY DISCRETE ELEMENT METHOD & EXPERIMENTS-APPLICATION TO LIQUEFACTION POTENTIAL | | | | |
| Old Dominion University | Isao | N 36 10/12/92 \$250,142 | LEWIS 93-NA-037 | |

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|---|----------------------------|-----------------------------------|---|------------------------------------|
| FIBER-REINFORCED RAPID-SETTING ALL WEATHER HIGH STRENGTH POLYESTER POLYMER CONCRETE New Jersey Institute of Technology | Isa C T Thomas | N 12 10/12/92 \$48,067 | LEWIS 93-NA-038 | |
| A MICROMECHANICAL INVESTIGATION OF INSTABILITY IN PARTICULATE MATERIALS Univ of Southern California | Jardet Jean-Pierre | N 36 10/12/92 \$320,267 | LEWIS 93-NA-039 | |
| PERFORMANCE IMPROVEMENTS IN PLASMA THRUSTERS Massachusetts Institute of Technology | Martinez-Janchez Manuel | R 24 10/12/92 \$210,934 | A BIRKAN 93-NA-040 | \$103,667 01/05/93 \$210,934 |
| INVESTIGATION OF ACTIVE CONTROL OF COMBUSTION INSTABILITIES IN CHEMICAL ROCKETS Georgia Tech Research Corporation | Zinn Ben | N 36 15/12/92 \$461,934 | A BIRKAN 93-NA-041 | \$78,665 01/03/93 \$461,934 |
| VASA AXES COMPUTER GRAPHICS SUPPORT FOR PAVIL 401V NASA - Ames Research Center | Toscallo Rob | N 09 16/12/92 \$15,000 | A SAKELL 93-NA-042 | |
| SPONSOR A HYPERSONICS SYMPOSIUM - HULL 17-19 MAY 1993 Air Force Wright Aeronautical Labs | Kimmel Roger | N 03 17/12/92 \$30,000 | M SAKELL 93-NA-043 | |
| UNSTEADY SEPARATED FLOWS: EMPIRICAL MODELS FOR AERODYNAMIC PREDICTION Univ of Colorado | Luttges Marvin | N 24 21/12/92 \$84,279 | FANT 93-NA-044 | |
| STUDIES IN FLOW DEVELOPMENT Univ of Washington | Celminale William | N 36 23/12/92 \$342,240 | MCMICHAEL 93-NA-045 | |
| ON-LINE DAMAGE DIAGNOSIS OF COMPOSITE STRUCTURES USING BUILT-IN PIEZOELECTRIC SENSORS AND ACTUATORS Stanford University | Chang Fu-Kuo | N 36 23/12/92 \$265,813 | JONES 93-NA-046 | |

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| STRUCTURAL DAMAGE CHARACTERISTICS THROUGH FRACTALS Univ of Connecticut | Grinivasan A | N 12 23/12/92 \$142,152 | JONES 93-NA-047 | \$395,056 15/04/93 \$594,684 |
| EXPERIMENTS AND MODELING IN HIGH-REYNOLDS-NUMBER TURBULENCE Yale University | Greenivasan K | N 36 23/12/92 \$594,684 | MCMICHAEL 93-NA-048 | |
| OPERATING EXPENSES OF THE USC IODINE VAPOR NONEQUILIBRIUM FLOW FLOW FACILITY Univ of Southern California | Muntz E | N 24 23/12/92 \$73,234 | SAKELL 93-NA-049 | |
| FUNDAMENTAL STUDY OF THE AERO-ELASTIC PROBLEMS AT HIGH SUPERSONIC AND HYPERSONIC SPEEDS Univ of California, Los Angeles | Friedmann Peretz | N 36 24/12/92 \$289,470 | JONES 93-NA-050 | |
| GRADUATE STUDENT SUPPORT FOR 4EET-0013 Univ of Virginia | Quva John Mark | N 12 24/12/92 \$9,375 | A LEWIS 93-NA-051 | \$9,375 01/04/93 \$9,375 |
| MOLECULAR MIXING IN SHEAR LAYERS FORCED BY 2-D AND 3-D DISTURBANCES Michigan State University | Koochastafani Manoochehr | R 28 24/12/92 \$171,996 | A MCMICHAEL 93-NA-052 | \$84,377 01/06/93 \$171,996 |
| HEAT TRANSFER AND FLOW STRUCTURE IN END-WALL BOUNDARY LAYERS Michigan University | Smith C R | N 36 29/12/92 \$465,032 | A FANT 93-NA-053 | \$155,522 01/03/93 \$465,032 |
| PROPOSED CONTINUATION FOR AIR FORCE RESEARCH ON AEROPROPULSION TECHNOLOGY (AFAPR) Irvine University | Fleeter Sanford | R 12 30/12/92 \$155,670 | A TISHKOFF 93-NA-054 | \$155,670 15/08/93 \$155,670 |
| (MURR) INTEGRATED MICROTRANSDUCER & NEURAL NETWORK SYSTEMS FOR DISTRIBUTED CONTROL Univ of California, Los Angeles | Lo Cnln-41n7 | N 48 30/12/92 \$3,160,000 | A MCMICHAEL 93-NA-055 | \$790,000 15/04/93 \$3,160,000 |

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|--|--------------|-----------------------------------|---|------------------------------------|
| AFRPT TRAINEESHIPS Pennsylvania State University | Santavice | R 12 30/12/92 \$114,180 | A TISHKOFF 93-NA-056 | \$114,180 15/08/93 \$114,180 |
| (AFRPT) MASSACHUSETTS INSTITUTE OF TECHNOLOGY Massachusetts Institute of Technology | Greller | R 12 31/12/92 \$103,271 | A FANT 93-NA-057 | \$103,271 01/09/93 \$103,271 |

| TITLE PROJECT (CONT.) INSTITUTION | INVESTIGATOR | TYPE/MONTHS RECEIVED AMOUNT | STATUS PROGRAM MANAGER PROPOSAL # | INITIATE START DATE TOT AMT |
|---|----------------------|-----------------------------------|---|------------------------------------|
| *M AS INITIO STUDY OF CHLORALUMINATE MELTS Delaware State University | Malins Gilbert | N 36 05/10/92 \$185,793 | WILKES 93-MC-001 | \$149,540 01/01/93 \$149,912 |
| CHEMICAL STUDIES IN LEWIS ACID AND SUPERACID IONIC LIQUIDS North Carolina State University | Osteryoung Robert | R 12 05/10/92 \$149,540 | A WILKES 93-MC-002 | \$149,540 01/01/93 \$149,912 |
| COMBUSTION SYNTHESIS OF NIOBIUM INTERMETALLICS AND COMPOSITES Univ of Cincinnati | Sekhar J. | N 36 09/10/92 \$399,864 | A ROSENSTEIN 93-MC-004 | \$128,223 01/04/93 \$399,864 |
| POLYMER GELS AS SENSORS Polytechnic University | Kael T. | N 36 08/10/92 \$339,041 | LEE 93-MC-005 | \$142,860 01/03/93 \$435,930 |
| PROCESSING AND CHARACTERIZATION OF FINE GRAINED ORDERED INTERMETALLIC ALLOYS Illinois Institute of Technology | Yollar Marek | N 36 09/10/92 \$435,230 | A ROSENSTEIN 93-MC-006 | \$145,608 01/04/93 \$422,969 |
| SONOCHEMICAL SYNTHESIS OF NANOCRYSTALLINE MOLYBDENUM DITHIOLIDE (40SIC) Washington University | Sastry Shankar M. | N 36 13/10/92 \$422,969 | A ROSENSTEIN 93-MC-007 | \$204,500 01/10/92 \$204,500 |
| MOLECULAR BEAM EPITAXY GROWN OXIDES - A NEW CLASS OF CERAMICS Oak Ridge National Lab | McKee Rodney | N 12 13/10/92 \$200,000 | A BURGGRAF 93-MC-008 | \$20,000 01/11/92 \$20,000 |
| TRANSITIONING FLUOROCARBON ETHER TECHNOLOGY European Office of Aero Resch and Develop | Chambers Richard | N 12 15/10/92 \$20,000 | A HEDBERG 93-MC-009 | \$87,000 01/03/93 \$442,265 |
| INVESTIGATION FOR HIGH-TEMPERATURE EFFECTIC MICROCOMPOSITES General Electric Co | Teisley Bernard | N 36 20/10/92 \$442,265 | A ROSENSTEIN 93-MC-011 | \$87,000 01/03/93 \$442,265 |

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| ELECTROCHEMICAL SYNTHESIS OF ULTRATHIN FILM COMPOSITE MEMBRANES Colorado State University | Martin Charles | R 12 23/10/92 \$96,491 | A WILKES 93-MC-012 | \$96,491 01/06/93 \$96,491 |
| 1993 JORDON RESEARCH CONFERENCE ON ELECTROCHEMISTRY Jordan Research Conference Inc | Alexander Cruikshank | M 12 27/10/92 \$4,000 | D WILKES 93-MC-014 | |
| SYNTHESIS OF NEW MATERIALS: NEW METHODS FOR THE SYNTHESIS OF LOW- DIMENSIONAL SOLIDS USING SELF-ASSEMBLY & SELF-STACKING TECHNIQUES SRI International | Robert Schmitt | M 36 04/11/92 \$465,235 | MEDEBERG 93-MC-016 | |
| ATOMIC MECHANISMS OF FLOW AND FRACTURE AT METAL-CERAMIC INTERFACES AND THEIR ROLE IN THE DESIGN OF METAL MATRIX COMPOSITES Cornell University | Robert Schmitt | M 36 10/11/92 \$407,601 | A ROSENSTEIN 93-MC-017 | \$130,258 01/06/93 \$407,601 |
| ROOM TEMPERATURE MOLTEN SALT MICRODYNAMICS Montana State University | Robert Carper | M 48 10/11/92 \$463,417 | WILKES 93-MC-018 | |
| CONTROL OF PHOTOASSOCIATION PRODUCTS BY LASER PHASE VARIATION Columbia University | Richard Larson | M 36 13/11/92 \$236,131 | BERMAN 93-MC-019 | |
| ISOPHASE SOL-GEL SUMMER SCHOOL Rutgers, The State University | Lisa Clein | M 04 19/11/92 \$12,925 | D BALL 93-MC-020 | |
| ADSORPTION OF POLYMERS ON SURFACES AS STUDIED BY SOLID-STATE NUCLEAR MAGNETIC RESONANCE Colorado State University | Gary Kachel | M 36 24/11/92 \$650,726 | LEE 93-MC-021 | |
| NMR STUDY OF AGRO-SILICATE AND ALUMINO-SILICATE SOL-GEL PREPARED Z-APES Pennsylvania Polytechnic Institute | Robert Macrone | M 36 24/11/92 \$462,701 | D ERSTFELD 93-MC-022 | |

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| PRESSURE DEPENDENCE OF THE RELAXATION IN NONLINEAR OPTICAL POLYMERS Univ of Maryland, Baltimore Campus | Layden | N 36 26/11/92 \$220,726 | LEE 93-NC-023 | |
| A CONFERENCE ON METAL AND OXYGEN REGULATION OF JUNE EXPRESSION Univ of Georgia | Summers | N 07 30/11/92 \$5,000 | 0 HEDBERG 93-NC-024 | |
| CHEMISTRIUM ENERGETICS OF SUPERREACTIVE CHLORINE CONTAINING SPECIES ON GALLIUM ARSENIDE SURFACES Univ of California, San Diego | Kimmel | N 09 30/11/92 \$25,014 | A ERSTFELD 93-NC-025 | \$25,014 15/03/93 \$25,014 |
| ELECTROCHEMISTRY OF METAL SURFACES Univ of Cincinnati | Hubbard | N 36 04/12/92 \$551,299 | WILKES 93-NC-026 | |
| 1993 JORDON RESEARCH CONFERENCE ON PHYSICAL METALLURGY - MATERIALS 3F DESIGN Jordan Research Conferences Inc | Chen | N 06 04/12/92 \$6,000 | ROSENSTEIN 93-NC-027 | |
| SYNTHESIS OF CERAMICS AND CERAMIC COMPOSITES USING SPRAY COMBUSTION TECHNOLOGY Univ of California, Irvine | Lavernia | N 36 07/12/92 \$360,765 | PECHENIK 93-NC-028 | |
| CHEMICAL VAPOR DEPOSITION OF CERAMICS SYMPOSIUM American Ceramic Society | Holbrook | N 12 07/12/92 \$5,000 | PECHENIK 93-NC-029 | |
| INTERNATIONAL CONFERENCE ON ORGANIC NONLINEAR OPTICS I Washington State University | Kuzak | N 05 07/12/92 \$5,400 | LEE 93-NC-030 | |
| A KINETIC DESCRIPTION OF REACTIONS IN SOLID HYDROGEN Washington University | Wojcik | N 36 09/12/92 \$219,926 | BERMAN 93-NC-031 | |

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| PHOTOPHYSICS OF HIGH ENERGY DENSITY MATERIALS National Inst. of Standards & Technology | Casassa Michael | N 12 08/12/92 \$100,000 | A BERMAN 93-MC-032 | \$100,000 01/10/92 \$100,000 |
| SYNTHESIS AND PROPERTIES OF NOVEL CARBOSILANE THERMOSET MATERIALS Univ of Southern California | Deber William | N 36 09/12/92 \$580,226 | LEE 93-MC-033 | |
| NANODESIGNING OF HIERARCHICAL MULTIFUNCTIONAL CERAMICS Princeton University | Aksoy Ilhan | N 36 15/12/92 \$256,972 | A ERSTFELD 93-MC-034 | \$256,972 01/04/93 \$1,091,804 |
| SYNERGISTIC THERMOCHEMICAL AND MECHANICOCHEMICAL RESPONSE IN FUNCTIONALIZED POLYMER BLENDS VIA TRANSITION-METAL COORDINATION California State University | Laurence | N 36 15/12/92 \$657,719 | ERSTFELD 93-MC-035 | |
| WORKSHOP ON SYNTHESIS OF MACROMOLECULES WITH PRECISELY CONTROLLED STRUCTURES FOR MATERIALS Massachusetts Institute of Technology | Thomas Edwin | N 12 15/12/92 \$10,000 | A HEDBERG 93-MC-036 | \$10,000 01/03/93 \$10,000 |
| FUNDAMENTAL CONCEPTS RELATING LOCAL ATOMIC ARRANGEMENT, DEFORMATION AND FRACTURE OF INTERMETALLIC ALLOYS Univ of Virginia | Hart John | R 12 15/12/92 \$35,955 | A ROSENSTEIN 93-MC-037 | \$35,955 01/04/93 \$35,955 |
| SINGLE CRYSTAL FILMS AND HETEROPHASES OF ORGANIC MATERIALS: PREPARATION AND NONLINEAR OPTICAL PROPERTIES Lubbock University | Thacker Mrdal | N 36 15/12/92 \$192,619 | A LEE 93-MC-038 | \$69,128 01/04/93 \$192,618 |
| BASIC SOLUTIONS TO CARBON/CARBON OXIDATION: SCIENCE AND TECHNOLOGY Pennsylvania State University | Harrison Tan | N 48 21/12/92 \$3,967,529 | A ERSTFELD 93-MC-039 | \$590,000 15/03/93 \$2,360,000 |
| THEORY OF NONLINEAR OPTICAL POLYMERS Univ of Houston | Su Wu-Pei | N 36 22/12/92 \$133,064 | BURGGRAB 93-MC-040 | |

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| ASERT-92 SYNTHESIS AND CHARACTERIZATION OF BULK IONON SUBOXIDES Univ of Illinois | Trenary Michael | N 36 22/12/92 \$158,775 | ERSTFELD 93-NC-041 | |
| ASERT-92 ETCHING OF GaAs(100) ON THE ATOMIC SCALE Univ of California, San Diego | Kunzel Andrew | N 36 22/12/92 \$127,039 | ERSTFELD 93-NC-042 | |
| ASERT-92 HIGH TEMPERATURE STABILITY OF BINARY MICROSTRUCTURES DERIVED FROM LIQUID PRECURSORS-SUPPLEMENTAL SUPPORT Univ of California, Santa Barbara | Longo Fred | N 36 22/12/92 \$307,929 | PECHEMIK 93-NC-043 | |
| ASERT-92 EXPERIMENTAL INVESTIGATION OF ROOM VAN DER WAALS COMPLEXES Johns Hopkins University | Dandlijan Paul | N 36 22/12/92 \$94,240 | BERMAN 93-NC-044 | |
| ASERT-92 VIBRATIONAL SPECTROSCOPY AND FEMTOSECOND DYNAMICS AT LIQUID/SOLID INTERFACE Columbia University | Eisenthal Kenneth | N 36 22/12/92 \$311,300 | HEDBERG 93-NC-045 | |
| ASERT-92 IONIZATION AND ENERGY TRANSFER PROCESSES IN VIBRATIONALLY NONEQUILIBRIUM PLASMAS Ohio State University | Rice J. William | N 36 22/12/92 \$132,162 | BERMAN 93-NC-046 | |
| ASERT-92 LASER GENERATION OF HIGH ENERGY DENSITY MATERIALS IN SUPERSONIC EXPANSIONS Univ of California, Berkeley | Savitsky Richard | N 36 22/12/92 \$102,735 | BERMAN 93-NC-047 | |
| ASERT-92 BIO MINERIC MINERALIZATION OF BACTERIA Univ of Arizona | Calvert Paul | N 36 22/12/92 \$87,934 | HEDBERG 93-NC-048 | |
| ASERT-92 STATE-TO-STATE COLLISIONAL DYNAMICS OF ATMOSPHERIC SPECIES Univ of Colorado | Nesbitt David | N 36 23/12/92 \$120,629 | BERMAN 93-NC-049 | |

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| ASERT-92 TRANSITION METAL COMPLEX SUPERCONDUCTORS BY ELECTROCRYSTALLIZATION Univ of Florida | Reynolds John | N 36 23/12/92 \$93,594 | LEE 93-MC-050 | |
| ASERT-92 NEW ROUTES TO FLUORINATED LIGANDS AND POLYMERS Dartmouth College | Magnus Russell | N 36 23/12/92 \$151,449 | MEDEBERG 93-MC-051 | |
| ASERT-92 FABRICATION OF STIMULATED MOLECULAR-LEVEL COMPOSITES Pennsylvania State University | Blancani Patricia | N 36 23/12/92 \$198,259 | MEDEBERG 93-MC-052 | |
| ASERT-92 THE DESIGN OF METALLIC COMPOSITES MADE FROM NICKEL- ALUMINUM Cornell University | Radj Rishi | N 36 23/12/92 \$166,903 | ROSENSTEIN 93-MC-053 | |
| ASERT-92 SPECTROSCOPIC STUDIES OF METAL CONDENSATION Univ of Georgia | Duncan Michael | N 36 23/12/92 \$126,030 | BERMAN 93-MC-054 | |
| ASERT-92 ANIONICALLY-CONDUCTIVE ULTRATHIN FILM COMPOSITE MEMBRANES Colorado State University | Martin Charles | N 36 23/12/92 \$100,965 | WILKES 93-MC-055 | |
| ASERT-92 GAS PHASE STUDIES OF BORON, SILICON, AND ALUMINUM- IMPLEMENTATION OF TRIPLE Univ of Colorado at Denver | Barbauer Robert | N 36 23/12/92 \$89,598 | ERSTFELD 93-MC-056 | |
| ASERT-92 STATE-SELECTED ION-MOLECULE REACTIONS Stanford University | Zare Richard | N 36 23/12/92 \$102,946 | BERMAN 93-MC-057 | |
| ASERT-92 NEW FLUOROCARBON AND FLUOROCARBON COMPOUNDS AS STABLE FLUIDS OR FLUID PRECURSORS Univ of Idaho | Shreeve Jeanine | N 36 23/12/92 \$181,051 | MEDEBERG 93-MC-058 | |

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| ASERT-92 SYNTHESIS AND PROPERTIES OF COMPLEX POLYARYLENE VINYLENES Univ of Massachusetts | Karasz | N 36 23/12/92 \$189,142 | LEE 93-NC-059 | |
| ASERT-92 MECHANICAL TOUNGHEING OF MAGNETIC AND ELECTROCERAMICS Univ of New Mexico | Jelison | N 36 23/12/92 \$104,449 | PECHEMIK 93-NC-060 | |
| ASERT-92 SYNTHESIS OF NEW HIGH-ENERGY FUELS BASED ON STRAINED- RING COMPOUNDS Univ of Pennsylvania | Dailey | N 36 23/12/92 \$192,225 | BERMAN 93-NC-061 | |
| ASERT-92 ALL-OPTICAL POLYMER FILLED DEVICES Washington State University | Kuzak | N 36 23/12/92 \$116,535 | LEE 93-NC-062 | |
| ASERT-92 THEORETICAL STUDIES OF CHEMICAL PROCESSES ON SURFACES California State University | Raff | N 36 23/12/92 \$89,382 | BURGGRAF 93-NC-163 | |
| ASERT-92 SURFACE SCIENCE RESEARCH TRAINING Univ of Chicago | Sibener | N 36 23/12/92 \$129,268 | ERSTFELD 93-NC-064 | |
| ASERT-92 THEORETICAL STUDIES OF REACTION SURFACES IOWA STATE UNIVERSITY | Gordon | N 36 24/12/92 \$120,600 | BALL 93-NC-065 | |
| ASERT-92 NEW LOW TEMPERATURE ROUTES TO SEMICONDUCTOR MATERIALS North Dakota State University | Boudjouk | N 36 24/12/92 \$150,000 | HEBERG 93-NC-066 | |
| ASERT-92 REACTIVE ION SCATTERING AND DEPOSITION: THE ROLE OF MULTI-CHANNEL CHARGE TRANSFER Cornell University | Casper | N 36 24/12/92 \$172,330 | ERSTFELD 93-NC-067 | |

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| N 36 26/12/92 \$103,224 | BERMAN 93-MC-068 | |

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 INVESTIGATOR
 LEONE
 Stephen
 JPL of Colorado

ASCRF-92 REACTIONS OF ATMOSPHERIC CLUSTER IONS

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| THE RESPONSE OF CHARGE CARPERS CONFINED IN LOW-DIMENSIONAL LAYERS TO EXTERNAL FIELDS AND LIGHT FRANKFURT, INSTITUTE FOR ANGELMANT-RESE | ULFICH | N 36 05/10/92 \$291,105 | POMRENKE 93-NE-001 | |
| OPTICAL SIGNAL PROCESSING AND HOLOGRAPHY Jordan Research Conference Inc | Seidenshank | N 12 05/10/92 \$6,000 | CRAIG 93-NE-002 | |
| OPTICS IN PARALLEL SHARED MEMORY COMPUTING John of Southern California | Jenkins | N 36 05/10/92 \$333,762 | CRAIG 93-NE-003 | |
| MANUFACTURED PICO-SECOND P-TYPE COMPOSITE STUDIES FOR OPTICAL RADIATION DETECTION IN 3-5 μ M WAVELENGTH RANGE Stanford University | Clayton | N 36 06/10/92 \$404,322 | POMRENKE 93-NE-005 | |
| COHERENT BACKSCATTERING OF OPTICAL SECOND HARMONIC GENERATION John of Toledo | Henry | N 24 07/10/92 \$124,529 | SCHLOSSER 93-NE-006 | \$277,973 01/02/93 \$275,884 |
| ION CUSTODY AND IONIC PLASMA STATE Stanford Institute of Technology | Vittorio | R 12 13/10/92 \$275,884 | A BARKER 93-NE-008 | \$211,535 01/02/93 \$211,535 |
| POSITIVELY PULSED BACKWARD-WAVE OSCILLATION INVESTIGATIONS John of New Mexico | Schlottman | R 12 13/10/92 \$211,535 | A BARKER 93-NE-009 | \$197,050 13/10/92 \$197,050 |
| SPACETIME PHYSICS (LAML DRA-93-1001) Los Alamos Nat'l Lab--Appl Theor Phys Div | Warner | N 12 13/10/92 \$197,050 | A BARKER 93-NE-010 | \$90,000 01/03/93 \$90,000 |
| COMPACT MILLIMETER-WAVE DEVICES: WIDEBAND GYRO-TWT, NEGATIVE ENERGY GUN, CARM, CRO-IMO AND PULSED HARMONIC GYRO-TWT John of California, Los Angeles | Neville | R 12 14/10/92 \$90,000 | A BARKER 93-NE-011 | |

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| REPERIMENTARY OF FERNARY SIZED ALLOYS ON ST FOR BIPOLAR TRANSISTORS Arizona State University | Waver | N 36 15/10/92 \$1,500,000 | A MITT 93-NE-012 | \$250,000 01/04/93 \$1,499,592 |
| MICROWAVE PROPAGATION AND ATTENUATION IN MAGNETOPLASMAS Massachusetts Institute of Technology | Lae | R 12 16/10/92 \$50,000 | A BARKER 93-NE-013 | \$50,000 01/12/92 \$50,000 |
| COLLISIONAL PROCESSES INVOLVING ATMOSPHERIC GASES Univ of Wisconsin | Lin | R 36 19/10/92 \$320,869 | A KELLEY 93-NE-014 | \$99,878 01/08/93 \$320,869 |
| LASER THREE-DIMENSIONAL PROCESSING MIT -- Lincoln Lab | Emilich | N 36 20/10/92 \$285,153 | SCHLOSSER 93-NE-015 | |
| HOLOGRAPHIC STORAGE AND PROCESSING FOR VERY LARGE RELATIONAL DATABASES Colorado State University | Mitacs | N 36 20/10/92 \$240,139 | CRAIG 93-NE-016 | |
| ORGANIZATION OF THE 1993 PHOTONICS SCIENCE TOPICAL MEETINGS Optical Society of America | Julian | N 12 23/10/92 \$145,000 | A SCHLOSSER 93-NE-017 | \$97,500 01/02/93 \$97,500 |
| BASIC RESEARCH IN MICROWAVE-PLASMA INTERACTION Polytechnic University | Kuo | N 36 23/10/92 \$511,251 | A BARKER 93-NE-018 | |
| NINTH INTERDISCIPLINARY LASER SCIENCE CONFERENCE (ILS-IX) Univ of Arizona | Payzhaevarian | N 12 26/10/92 \$6,000 | KELLEY 93-NE-020 | |
| A STUDY OF AMORPHOUS MATERIALS AND INTERACTING TUNNELING DIPOLES AND QUANTUM CELLS Purdue Polytechnic Institute | Clavin | N 24 29/10/92 \$139,374 | POMRENKE 93-NE-021 | |

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| DISTRIBUTED FIBER OPTIC SENSORS USING HOLOGRAPHIC TECHNIQUES Univ of Colorado | Anderson Dana | N 36 04/11/92 \$569,505 | SCHLOSSER 93-NE-023 | \$140,000 01/06/93 \$432,000 |
| OPTICAL METROLOGY OF MAGNETICALLY TRAPPED HYDROGEN Massachusetts Institute of Technology | Kleppner Daniel | N 36 09/11/92 \$432,000 | A KELLEY 93-NE-024 | \$50,583 01/05/93 \$158,700 |
| ATOMIC PROCESSES RELATED TO ANTIMATTER PRODUCTION AND STORAGE Univ of Western Ontario | Mitchell J. B. A. | N 36 09/11/92 \$158,700 | A KELLEY 93-NE-025 | \$50,583 01/05/93 \$158,700 |
| NANOSCALE TERA-HERTZ PHOTODETECTORS AND PULSE GENERATORS ON INGAAS AND SiGe Univ of Minnesota | Choi Stephen | N 36 13/11/92 \$381,366 | D WITT 93-NE-026 | |
| IN AND Sb BASED III-V MICROSTRUCTURES WITH NOVEL ELECTRONIC PROPERTIES California Institute of Technology | McGill T | R 36 13/11/92 \$497,152 | POMRENKE 93-NE-027 | |
| RELATIVISTIC AND CORRELATION EFFECTS OF THE SPECIFIC MASS SHIFT IN ATOMS USING B-SPLINES Michigan Technological University | Parzer Warren | N 36 13/11/92 \$196,485 | D KELLEY 93-NE-028 | |
| CHEMISORPTION ENERGISTICS OF SUPERREACTIVE CHLORINE CONTAINING SPECIES ON GALLIUM ARSENIDE SURFACES Univ of California, La Jolla | Turney Andrea | R 8 13/11/92 \$25,014 | POMRENKE 93-NE-029 | |
| ABSORPTION OF THE INTERACTION OF RADIATION WITH MATTER: TRANSIENT SPECTROSCOPY OF COLD ATOMS AND ATOMIC VAPORS New York University | Soreen Paul | N 36 13/11/92 \$303,000 | D KELLEY 93-NE-030 | |
| MRS SYMPOSIUM: PURE EARTH DOPED SEMICONDUCTORS Materials Research Society | Ballance John | N 36 13/11/92 \$17,576 | A POMRENKE 93-NE-031 | \$17,576 01/02/93 \$17,576 |

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| HYBRID CYCLOTRON WAVE TUBE OPERATING AT CYCLOTRON HARMONIC FREQUENCIES Univ of Maryland | Granatstein Victor | R 12 16/11/92 \$45,000 | A BARKER 93-NE-032 | \$45,000 15/03/93 \$45,000 |
| PARTICIPANT SUPPORT FOR THE TWENTIETH INTERNATIONAL CONFERENCE ON LOW TEMPERATURE PHYSICS Univ of Oregon | Donnelly Russell | N 12 23/11/92 \$10,000 | D WEINSTOCK 93-NE-033 | |
| MAGNETIC FIELD INDUCED STRUCTURAL PHASE TRANSITIONS IN RARE EARTH COMPOUNDS WITH COOPERATIVE JAH-TELLER EFFECTS Boston University | Zimmerman George | N 36 23/11/92 \$362,262 | WEINSTOCK 93-NE-034 | |
| TWENTIETH ANNUAL CONFERENCE ON THE PHYSICS AND CHEMISTRY OF SEMICONDUCTOR INTERFACES Kerck Leister Research Center | Brillson L. J. | N 12 23/11/92 \$14,500 | POMRENKE 93-NE-035 | |
| SUBJECT-ORIENTED FORMULATIONS FOR PARTICLE-IN-CELL (PIC) PLASMA George Mason University | Rine David | R 36 24/11/92 \$30,000 | A BARKER 93-NE-036 | \$29,901 01/09/93 \$90,000 |
| MANUSCRIPT PROCESSING AND ATOMISTIC KINETICS OF LATTICE MISMATCHED GROWTH ON SUBMICRON MESAS Univ of Southern California | Madhukar Anupam | N 42 24/11/92 \$927,200 | POMRENKE 93-NE-037 | |
| ADVANCED X-RAY ANALYTICAL INSTRUMENTATION RESEARCH Advanced Research and Applications Corp | Koppel Lou | N 36 24/11/92 \$810,145 | A SCHLOSSER 93-NE-038 | \$186,103 01/04/93 \$810,144 |
| A STUDY OF EFFICIENT PLASMA SOURCES Conorville College | Rader Mark | N 36 24/11/92 \$581,486 | A BARKER 93-NE-039 | \$188,451 01/04/93 \$581,486 |
| HIGH POWER, HIGH FREQUENCY RADIATION FROM REM-PLASMA INTERACTIONS Univ of California, Irvine | Sanford Gregory | R 12 30/11/92 \$79,930 | A BARKER 93-NE-040 | \$79,930 01/05/93 \$79,930 |

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| POINT SPREAD MATRICES OF PHASE MODULATING SPATIAL LIGHT MODULATORS Univ of Alabama | Chiswan Russell | N 24 02/12/92 \$121,872 | CRAIG 93-NE-041 | \$131,677 01/04/93 \$263,353 |
| MULTILAYER X-RAY OPTICS Univ of Arizona | Salco Charles | N 36 07/12/92 \$830,467 | A SCHLOSSBER 93-NE-042 | \$60,025 01/04/93 \$60,025 |
| TIME-RESOLVED, HIGH-RESOLUTION, X-RAY MICROSCOPY OF IN-VITRO BIOLOGICAL & LIFE SCIENCE SPECIMENS WITH THE AID OF LASER PLASMAS Univ of Central Florida | Richardson Martin | N 12 07/12/92 \$60,025 | A SCHLOSSBER 93-NE-043 | \$60,025 01/04/93 \$60,025 |
| ASYNCHRONOUS FREQUENCY MODULATED WAVES IN A RING LASER Colorado School of Mines | Kowalski Frank | N 24 07/12/92 \$162,345 | SCHLOSSBER 93-NE-044 | \$134,864 01/07/93 \$134,864 |
| RECOMBINATION, ELECTRON-EXCITED ATOM COLLISIONS AND ION-MOLECULE REACTIONS Georgia Tech Research Corporation | Flannery Martin | R 12 09/12/92 \$134,864 | A KELLEY 93-NE-045 | \$310,000 01/04/93 \$991,995 |
| ANTI-PROTON STUDIES AND MASS SPECTROSCOPY Harvard University | Gabrielse Serald | N 36 08/12/92 \$991,995 | A KELLEY 93-NE-046 | \$12,530 01/04/93 \$12,530 |
| INTERNATIONAL CONFERENCE ON NOISE IN PHYSICAL SYSTEMS AND I/F NOISE Univ of Missouri | Handel Peter | N 12 08/12/92 \$78,750 | D WITT 93-NE-047 | \$12,530 01/04/93 \$12,530 |
| LOW TEMPERATURE GROWN AND HIGHLY NON-STOICHIOMETRIC GASES AND RELAT ED MATERIALS Materials Research Society | Hallance John | N 12 09/12/92 \$12,530 | A WITT 93-NE-048 | \$12,530 01/04/93 \$12,530 |
| HIGH-PERFORMANCE AND LOW-COST OPTICAL INTERCONNECTS Univ of Colorado | Hoff John | N 12 09/12/92 \$46,451 | CRAIG 93-NE-049 | |

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|--|---------------------|-----------------------------------|---|--------------------------------------|
| EXPERT SYSTEM FOR CONTROL OF PLASMA, BEAM AND WAVE DYNAMICS IN MICROWAVE TUBES Unicon Electron Devices | Siablis John | N 36 10/12/92 \$750,752 | A BARKER 93-NE-050 | \$125,256 01/04/93 \$750,752 |
| JOINT INDUSTRY-UNIVERSITY PROGRAM FOR COMPUTATIONAL PLASMA RESEARCH Mission Research Corp | Soellen Bruce | R 36 10/12/92 \$839,213 | A BARKER 93-NE-051 | \$117,678 01/06/93 \$839,213 |
| THE TENTH INTERNATIONAL CONFERENCE ON THE ELECTRONIC PROPERTIES OF FAB-DIMENSIONAL SYSTEMS Brown University | Muraliko Arto | N 18 11/12/92 \$7,000 | D WITT 93-NE-052 | |
| PICOSECOND X-RAY SPECTROSCOPY Washington State University | Murnane Margaret | N 36 11/12/92 \$123,009 | A SCHLOSSER 93-NE-053 | \$40,000 01/04/93 \$123,009 |
| ADVANCED INSTRUMENTATION & MEASUREMENTS FOR EARLY NONDESTRUCTIVE EVALUATION OF DAMAGE & DEFECTS IN AEROSTRUCTURES & AGING AIRCRAFT Vanderbilt University | Wikso John | N 48 14/12/92 \$1,466,588 | A WEINSTOCK 93-NE-054 | \$366,647 15/03/93 \$1,466,588 |
| ADVANCED INSTRUMENTATION & MEASUREMENTS FOR EARLY NONDESTRUCTIVE EVALUATION OF DAMAGE & DEFECTS IN AEROSTRUCTURES & AGING AIRCRAFT Northeastern University | Achenbach Jan | N 48 14/12/92 \$333,412 | A WEINSTOCK 93-NE-055 | \$233,353 15/03/93 \$333,412 |
| MBE GROWTH AND CHARACTERIZATION OF ZINC OLENDE JAN AND JAN/AIN STRUCTURES Oklahoma State University | Song J | N 36 15/12/92 \$507,624 | POMRENKE 93-NE-056 | |
| A SMITH-PURCELL FREE ELECTRON LASER BASED ON A MICROWAVE ELECTRON GUN: ANALYSIS AND EXPERIMENTS Univ of New Mexico | Brueck Steven | N 36 16/12/92 \$511,904 | SCHLOSSER 93-NE-058 | |
| HIGH DENSITY AND COMPACT WAVEGUIDE USING GE AND GAAS Rutgers, The State University | Lu Yicheng | N 12 16/12/92 \$50,000 | CRAIG 93-NE-059 | |

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| (MURI) ENVIRONMENTAL DEGRADATION/FATIGUE IN AIRCRAFT STRUCTURAL MATERIALS: RELATIONSHIP BETWEEN ENVIRONMENTAL DUTY/COMPONENT LIFE Massachusetts Institute of Technology | Rechts | N 36 17/12/92 \$2,400,000 | A WEINSTOCK 93-NE-060 | \$600,000 15/03/93 \$2,400,000 |
| HIGH POWER MICROWAVE GENERATOR Texas Tech University | Kristiansen | R 12 17/12/92 \$49,977 | A BARKER 93-NE-061 | \$49,977 15/03/93 \$49,977 |
| INVESTIGATION OF A RELATIVISTIC KLYSTRON SCHEME Texas Tech University | Ziener | R 12 21/12/92 \$162,127 | A BARKER 93-NE-062 | \$101,826 01/04/93 \$101,826 |
| INTERACTION OF ELECTROMAGNETIC FIELDS WITH MAGNETIZED PLASMAS Univ of Tennessee | Reece | R 12 21/12/92 \$34,891 | A BARKER 93-NE-063 | \$34,891 01/04/93 \$34,891 |
| CASERT-92) FEMTOSECOND LASER PROBN OF NON-THERMAL ELECTRONIC TRANSPORT AND IMPLEMENTATION OF THE CNM UNIVERSAL CHIP Univ of California, Berkeley | Chenming | N 36 22/12/92 \$380,908 | SMITH 93-NE-064 | |
| CASERT-92) TRANSPORT PROCESSES IN PLASMAS Rutgers, The State University | Joel | N 36 22/12/92 \$134,437 | BARKER 93-NE-065 | |
| CASERT-92) HIGH POWER, HIGH FREQUENCY RADIATION FROM BEAM-PLASMA INTERACTION Univ of California, Irvine | Gregory | N 36 22/12/92 \$154,630 | BARKER 93-NE-066 | |
| CASERT-92) REQUEST FOR ADDITIONAL GRADUATE STUDENT FOR STUDIES OF PLASMA LOADED BACKWARD WAVE OSCILLATORS Univ of Maryland | Granatstein | N 36 22/12/92 \$221,948 | BARKER 93-NE-067 | |
| CASERT-92) OBJECT-ORIENTED FORMULATIONS OF PARTICLE-IN-CELL (PIC) PLASMA SIMULATIONS Univ of California, Berkeley | Wardlaw | N 36 22/12/92 \$139,265 | BARKER 93-NE-068 | |

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| CAASERT-22) SLOTTED HIGH-HARMONIC Univ of California, Los Angeles | Luhmann, Jr Novillo | N 36 22/12/92 \$151,312 | BARKER 93-NE-069 | |
| CAASERT-23) NEGATIVE-ENERGY CYCLOTRON RESONANCE MASTER Univ of California, Los Angeles | Luhmann, Jr Novillo | N 36 22/12/92 \$151,312 | BARKER 93-NE-070 | |
| CAASERT-22) DEVELOPMENT OF A TRANSPARENT INTERNAL PROBE DIAGNOSTIC Univ of Washington | Jarboe Thomas | N 36 22/12/92 \$138,523 | BARKER 93-NE-071 | |
| CAASERT-22) GRADUATE STUDENT RESEARCH ON MICROWAVE SOURCES Univ of Michigan | Siljander Ronald | N 36 22/12/92 \$100,410 | BARKER 93-NE-072 | |
| CAASERT-22) OBJECT-ORIENTED FORMULATIONS FOR PARTICLE-IN-CELL (PIC) PLASMA SIMULATIONS Georgia Mason University | Alia George | N 36 22/12/92 \$264,058 | BARKER 93-NE-073 | |
| CAASERT-22) ENHANCEMENT OPPORTUNITIES FOR MINORITY GRAUJATE STUDENTS Univ of Tennessee | Alseoff Lior | N 36 22/12/92 \$168,743 | BARKER 93-NE-074 | |
| CAASERT-22) MICROWAVE ABSORPTION AND REFLECTION FROM ULTRAVIOLET LASER AND ELECTRON CYCLOTRON RESONANCE PRODUCED PLASMAS Univ of Wisconsin | Schroer John | N 36 22/12/92 \$171,065 | BARKER 93-NE-075 | |
| CAASERT-22) STUDENT SUPPORT FOR CARBIDE SURFACE STUDIES -Infield Research Institute | Davis Paul | N 36 22/12/92 \$105,120 | BARKER 93-NE-076 | |
| CAASERT-22) EXPERIMENTAL STUDIES OF PLASMA TURBULENCE Massachusetts Institute of Technology | Lee Min-Chang | N 36 22/12/92 \$313,425 | BARKER 93-NE-077 | |

1,387
1,792
1,387

1,000
13,793
1,000

1,000
12,793
1,000

3,877
25,793
6,380

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|---|----------------------------|-----------------------------------|---|-----------------------------------|
| CAASERT-92) GRADUATE AND UNDERGRADUATE STUDENT SUPPORT TO STUDY PLASMA ION MOLECULE CHEMISTRY Univ of Utah | Arnebrout Peter | N 36 23/12/92 \$77,742 | BARKER 93-NE-078 | |
| CAASERT-92) ELECTRICAL AND THERMAL STABILITY OF ATOMICALLY SHARP SILICON EMITTERS AT HIGH ELECTRIC FIELDS Pennsylvania State University | Cutter Paul | N 36 23/12/92 \$99,730 | BARKER 93-NE-079 | |
| CAASERT-92) EFFECTS OF JELF FIELDS ON THE THRESHOLD OF THE GYRO BACKWARD WAVE OSCILLATION Univ of California Los Angeles | Lin Anthony | N 36 23/12/92 \$98,399 | BARKER 93-NE-080 | |
| CAASERT-92) ARSENIC CLUSTER ENGINEERING FOR HIGH SPEED PHOTONIC DEVICES Jardue University | Malloch Michael | N 36 23/12/92 \$108,004 | WITT 93-NE-081 | |
| CAASERT-92) ELECTROMAGNETIC SIMULATION OF THREE-DIMENSIONAL MMIC STRUCTURES & PACKAGES Bright State University | Maishadnan Krishna | N 36 23/12/92 \$125,404 | WITT 93-NE-082 | |
| CAASERT-92) LOW-TEMPERATURE III-V SEMICONDUCTORS Univ of California, La Jolla | TU Charles | N 36 23/12/92 \$88,315 | WITT 93-NE-083 | |
| CAASERT-92) FOCUSED-ION-BEAM MICRO-MACHINING OF OPTICAL SURFACES FOR SEMICONDUCTOR LASER AND AMPLIFIERS Oregon Graduate Institute of Sci & Tech | Deffoez Richard | N 36 23/12/92 \$174,624 | WITT 93-NE-084 | |
| CAASERT-92) CHEMICAL BEAM EPITAXIAL GROWTH OF INGaAsP/InP HETERO-ST RUCTURES FOR QUANTUM WELL INFRARED PHOTO DETECTOR/OPTOELECTRONIC Univ of Illinois | Stillman Gregory | N 36 23/12/92 \$161,235 | WITT 93-NE-085 | |
| CAASERT-92) RADIATION-INDUCED DEGRADATION OF POWER MOSFETS AND TVALUOS CMOS AT 300 K AND 77 K Univ of Arizona | R. Schniepp K. Galloway | N 36 23/12/92 \$121,996 | WITT 93-NE-086 | |

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| (AASERT-92) MINIATURIZED ELECTROMAGNETIC SENSORS FOR EMPM Georgia Institute of Tech | Rohrbaugh John | N 36 23/12/92 \$168,968 | WITT 93-NE-087 | |
| (AASERT-92) BALLISTIC ELECTRON EMISSION MICROSCOPY FOR IMPROVING SCHOTTKY-BARRIER IR DETECTORS Rensselaer Polytechnic Institute | Schwabalter Leo | N 36 23/12/92 \$117,755 | WITT 93-NE-088 | |
| (AASERT-92) STUDIES OF LATTICE-MISMATCHED AND LOW-TEMPERATURE- GROWN SEMICONDUCTOR MULTIPLE-PHASE SYSTEMS Univ of California, Berkeley | Smith John | N 36 23/12/92 \$160,474 | WITT 93-NE-089 | |
| (AASERT-92) ADVANCES IN LASER COOLING State University of New York | Watcalf Harold | N 36 23/12/92 \$127,209 | KELLEY 93-NE-090 | |
| (AASERT-92) ELECTRON IMPACT IONIZATION AND DISSOCIATION OF MOLECULES USED IN PLASMA ETCHING AND DEPOSITION OF SEMICONDUCTORS California Institute of Technology | McKoy Vincent | N 36 23/12/92 \$141,464 | KELLEY 93-NE-091 | |
| (AASERT-92) ATOM INTERFEROMETRY AND NEW COOLING METHODS Stanford University | Chu Steven | N 36 23/12/92 \$231,513 | KELLEY 93-NE-092 | |
| (AASERT-92) ULTRA PRECISE LASER SPECTROSCOPY Massachusetts Institute of Technology | Kleppner Daniel | N 36 23/12/92 \$144,000 | KELLEY 93-NE-093 | |
| (AASERT-92) ORGANIC SUPERCONDUCTORS IN HIGH MAGNETIC FIELDS Clark University | Agosta Charles | N 36 23/12/92 \$95,896 | WEINSTOCK 93-NE-094 | |
| (AASERT-92) SPATIALLY-RESOLVED SPECTROSCOPY AND IMAGING OF MAGNETIC NANOSTRUCTURES Univ of California, Santa Barbara | Aschalance David | N 36 23/12/92 \$148,279 | WEINSTOCK 93-NE-095 | |

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| (AASERT-92) BOUNDARY EFFECTS IN HIGH-TEC SUPERCONDUCTING DEVICES Stanford University | Kapitulnik | N 36 23/12/92 \$150,092 | WEINSTOCK 93-NE-096 | |
| (AASERT-92) ON-CHIP INTEGRATION OF VLSI AND SI Univ of California, La Jolla | Dynas | N 36 23/12/92 \$98,559 | WEINSTOCK 93-NE-097 | |
| (AASERT-92) STUDENT TRAINING IN HIGH-TEMPERATURE SUPERCONDUCTING ELECTRONICS Univ of Rochester | Sobolewski | N 36 23/12/92 \$123,140 | WEINSTOCK 93-NE-098 | |
| (AASERT) MOLECULAR MANUFACTURING OF ELECTRONIC SOLIDS Univ of Colorado | Douglas | N 36 23/12/92 \$149,981 | WEINSTOCK 93-NE-099 | |
| (AASERT-92) SYNTHESIS AND CHARACTERIZATION OF CUO SUPERCONDUCTORS WITH ANOMALOUS TRANSITIONS ABOVE 200K Wayne State University | Zenger | N 36 23/12/92 \$148,975 | WEINSTOCK 93-NE-100 | |
| (AASERT-92) HIGH RESOLUTION SQUID MODE OF MAGNETIC AND NON-MAGNETIC AIRCRAFT COMPONENTS Vanderbilt University | Wicks | N 36 23/12/92 \$149,975 | WEINSTOCK 93-NE-101 | |
| (AASERT-92) BASIC OPTICAL STUDIES OF ELECTRON-DOPED HIGH TC OXIDE SUPERCONDUCTORS Massachusetts Institute of Technology | Dresselhaus | N 36 23/12/92 \$139,273 | WEINSTOCK 93-NE-102 | |
| (AASERT-92) FIELD-EFFECT-CONTROLLED, COULOMB-BLOCKADE SINGLE-ELECTRON TRANSISTOR IN SILICON Massachusetts Institute of Technology | Antoniadis | N 36 24/12/92 \$226,798 | WITT 93-NE-103 | |
| (AASERT-92) AVALANCHE COLLISION DYNAMICS IN ATOMIC SYSTEMS Univ of Michigan | Zang | N 36 24/12/92 \$128,497 | SCHLOSSBER 93-NE-104 | |

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| CAASERT-92) X-RAYS FROM HIGH INTENSITY SHORT PULSE INTERACTIONS Univ of California, Berkeley | Malone Roger | N 36 24/12/92 \$229,168 | SCHLOSSER 93-NE-105 | |
| CAASERT-92) ENHANCEMENT OF QUANTUM WELL NONLINEARITIES Tufts University | Kalley Paul | N 36 24/12/92 \$165,121 | SCHLOSSER 93-NE-106 | |
| CAASERT-92) DEVELOPMENT OF A NEW HIGH-RESOLUTION OPTIC FOR SOFT-X-RAY IMAGING Univ of Central Florida | Silvest William | N 36 24/12/92 \$115,965 | SCHLOSSER 93-NE-107 | |
| CAASERT-92) COHERENT PHONON MODULATION OF THE ELECTRONIC PROPERTIES OF NARROW-GAP MATERIALS Massachusetts Institute of Technology | Ipden Erich | N 36 24/12/92 \$150,000 | SCHLOSSER 93-NE-108 | |
| CAASERT-92) NONLINEAR OPTICAL PHENOMENA IN NONLINEAR RANDOM MEDIA City University of New York | Alfano Robert | N 36 29/12/92 \$119,687 | SCHLOSSER 93-NE-109 | |
| CAASERT-92) INJECTION LOCKING AND INSTABILITIES OF VERTICAL-CAVITY SURFACE-EMITTING LASERS Univ of Arizona | Knitrova Galina | N 36 29/12/92 \$68,239 | SCHLOSSER 93-NE-110 | |
| CAASERT-92) PICOSECOND X-RAY PHOTOEMISSION Washington State University | Munnane Margaret | N 36 23/12/92 \$91,329 | SCHLOSSER 93-NE-111 | |
| CAASERT-92) VISIBLE LASERS IN FIBERS AND WAVEGUIDES: NEW X-RAY GENERATING TARGETS Univ of Illinois | Ejer J. Gray | N 36 29/12/92 \$165,904 | SCHLOSSER 93-NE-112 | |
| CAASERT-92) IMAGING/COLLECTING OF SPATIALLY STRUCTURED ARRAYS OF ULTRASHORT PULSES FOR ULTRAHIGH INFORMATION RATE OPTICS: NUMERICAL Tansselaer Polytechnic Institute | Forc Richard | N 36 28/12/92 \$131,304 | SCHLOSSER 93-NE-113 | |

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|--|----------------------|-----------------------------------|---|-----------------------------------|
| CAASERT-92) PARAMETERIZING RADIATION FROM ELECTRO-OPTICS CRYSTALS Rensselaer Polytechnic Institute | Imang Xi-Cheng | N 36 28/12/92 \$257,331 | SCHLOSSBER 93-NE-114 | |
| CAASERT-92) ENHANCED MEASUREMENT TECHNIQUES FOR DIODE RING LASERS Cornell University | Ballantyne Joseph | N 36 29/12/92 \$175,359 | SCHLOSSBER 93-NE-115 | |
| CAASERT-92) DEVELOPMENT OF MOVING PINK NO:YAG AND Nd:YAG LASERS PUMPED BY PULSED DIODE LASERS Howard University | Kushadaha Vikram | N 36 28/12/92 \$172,551 | SCHLOSSBER 93-NE-116 | |
| CAASERT-92) PHYSICS/OPTOELECTRONIC APPLICATIONS OF PHOTONIC BAND STRUCTURES Univ of New Mexico | Walloy Kevin | N 36 28/12/92 \$121,869 | SCHLOSSBER 93-NE-117 | |
| CAASERT-92) DESIGN FOR RELIABILITY: CURRENT ESTIMATION FOR ELECTROMIGRATION, HOT-CARRIER AND VOLTAGE-DROP Univ of Illinois | Tabj Torahle | N 36 28/12/92 \$94,729 | POMRENKE 93-NE-118 | |
| CAASERT-92) PHOTOREFRACTION AS A DIAGNOSTIC TOOL FOR COMPOUND SEMICONDUCTORS Univ of Arkansas | Salama Gregory | N 36 28/12/92 \$152,847 | POMRENKE 93-NE-119 | |
| CAASERT-92) COULOMB EFFECTS IN RESONANTLY COUPLED QUANTUM WAVEGUIDES Univ of Notre Dame | Corad Wolfgang | N 36 28/12/92 \$202,823 | POMRENKE 93-NE-120 | |
| CAASERT-92) GROWTH AND CHARACTERIZATION OF SEMICONDUCTOR EPILAYERS FOR HIGH TEMPERATURE ELECTRONICS Carnegie-Mellon University | Skoronski Marek | N 36 28/12/92 \$166,323 | POMRENKE 93-NE-121 | |
| CAASERT-92) LASER PUMPING OF III-V AND II-VI SEMICONDUCTOR GROWTH Univ of Colorado | Leone Stephen | N 36 29/12/92 \$115,478 | POMRENKE 93-NE-122 | |

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| CAASERT-32) STUDENT SUPPORT FOR OPTOELECTRONIC WRE RESEARCH Colorado State University | Robinson Gary | N 36 28/12/92 \$128,500 | POMRENKE 93-NE-123 | |
| CAASERT-32) STUDIES OF SURFACE PROCESSES DURING GROWTH OF EPITAXIAL GERM NITRIDE Carnegie-Mellon University | Grove David | N 36 29/12/92 \$135,293 | POMRENKE 93-NE-124 | |
| CAASERT-32) SUBWAVELENGTH SPATIAL RESOLUTION DIAGNOSTICS OF VISIBLE AND IR SELF-EMITTING STRUCTURES AND FIELDS Cornell University | Isaacson Michael | N 36 29/12/92 \$176,019 | POMRENKE 93-NE-125 | |
| CAASERT-32) WRE GROWTH AND CHARACTERIZATION OF JAWAIN STRUCTURES UNDER HYDROSTATIC PRESSURE Alabama State University | Fauststein Robert | N 36 28/12/92 \$109,072 | POMRENKE 93-NE-126 | |
| CAASERT-32) ELECTRICAL PROPERTIES OF BLUE LASER DIODES Purdue Research Foundation | Junshor Robert | N 36 29/12/92 \$315,960 | POMRENKE 93-NE-127 | |
| CAASERT-32) INDIUM AND ANTIMONY BASED III-V MICROSTRUCTURES WITH NOVEL ELECTRONIC PROPERTIES California Institute of Technology | McGill Thomas | N 36 29/12/92 \$160,288 | POMRENKE 93-NE-128 | |
| CAASERT-32) SIM STUDIES ELECTROMIGRATION Univ of Minnesota | Cohen Phillip | N 36 29/12/92 \$214,037 | POMRENKE 93-NE-129 | |
| CAASERT-32) LUMINESCENCE PROPERTIES OF RARE EARTH DOPED SEMICONDUCTORS Univ of Colorado | Fauststein Robert | N 36 29/12/92 \$182,275 | POMRENKE 93-NE-130 | |
| CAASERT-32) LARGE SIGNAL CHARACTERIZATION MODELING OF HETEROJUNCTION BIPOLAR TRANSISTORS Michigan University | Wang James | N 36 28/12/92 \$233,941 | POMRENKE 93-NE-131 | |

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| CAASERT-92) OPTICAL EMISSION FROM DOPED SIZE ALLOYS AND SUPERLATTICES Univ of Rochester | Hall Dennis | N 36 28/12/92 \$114,900 | POMBENKE 93-WE-132 | |
| CAASERT-92) PROPERTIES OF WIDE BANDGAP SEMICONDUCTORS THAT AFFECT PERFORMANCE OF UV DETECTORS AND LED'S Univ of Pittsburgh | Choyke Holman | N 36 28/12/92 \$94,399 | POMBENKE 93-WE-133 | |
| 1.3 MICROMETER FIBER PHOTODETECTOR Rensselaer Polytechnic Institute | Zhang Xi-Cheng | N 12 29/12/92 \$24,983 | A SCHLOSSER 93-WE-134 | \$6,847 01/05/93 \$24,983 |
| COHERENT OPTOELECTRONIC MEASUREMENT OF SEMICONDUCTORS Rensselaer Polytechnic Institute | Zhang Xi-Cheng | N 36 29/12/92 \$224,271 | SCHLOSSER 93-WE-135 | |
| RESEARCH ON XUV LASERS AND APPLICATIONS Rice University | Young James | R 36 29/12/92 \$400,453 | SCHLOSSER 93-WE-136 | |
| PHOTODISSOCIATION OF ATOMS AND ATOMIC NEGATIVE IONS Univ of Central Florida | Saha Y. | N 24 29/12/92 \$118,092 | KELLEY 93-WE-137 | |
| 1993 GORDON RESEARCH CONFERENCE ON NONLINEAR OPTICS AND LASERS Gordon Research Conferences Inc | Cruickshank A | N 12 29/12/92 \$10,000 | A SCHLOSSER 93-WE-138 | \$10,000 01/04/93 \$10,000 |
| FORTY-SIXTH ANNUAL GASEOUS ELECTRONICS CONFERENCE Universite De Montreal | Molson Michel | N 12 30/12/92 \$9,000 | KELLEY 93-WE-139 | |
| CAASERT-92) HOLOGRAPHIC STUDY OF AVOINICS Rensselaer Polytechnic Institute | oryputniewicz Ryszard | N 36 30/12/92 \$409,082 | WEINSTOCK 93-WE-140 | |

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|---|----------------------|-----------------------------------|---|-----------------------------------|
| TYPICALLY COMPRESSED MICROWAVES FOR IMPULSED RADAR APPLICATIONS Univ of Rochester | Donaldson William | N 36 30/12/92 \$577,706 | BARKER 93-NE-141 | |
| (CASERT-92) DEMONSTRATION OF OPTICAL CORRELATION FOR SENSOR IMAGERY Florida Institute of Technology | Kozlitis Samuel | N 36 31/12/92 \$26,637 | CRAIG 93-NE-142 | |
| (CASERT-92) ORGANIC POLYMER OPTICAL JAVESQUES AND DEVICES: PART I MATERIAL CONSIDERATIONS: PART II: MODELLING Washington University | Krenshaw Robert | N 36 31/12/92 \$185,764 | CRAIG 93-NE-143 | |
| (CASERT-92) ADDITIONAL STUDIES OF EXTREMELY HIGH FREQUENCY ELECTRO-OPTIC MODULATORS AND THEIR APPLICATIONS California Institute of Technology | Triggs William | N 36 31/12/92 \$136,042 | CRAIG 93-NE-144 | |
| (CASERT-92) NOVEL PHOTONIC DEVICES FABRICATED ON (GIL)-ORIENTED TAAS AND INP SUBSTRATES Univ of Virginia | Yoo Ellis | N 36 31/12/92 \$290,361 | CRAIG 93-NE-145 | |
| (CASERT-92) DYNAMICS OF ANTI-GUIDED LASER ARRAYS Univ of Michigan | Zanful Herbert | N 36 31/12/92 \$102,049 | CRAIG 93-NE-146 | |
| (CASERT-92) ARCHITECTURAL STUDIES ON INTERFACING PARALLEL OPTICAL STORAGE SYSTEMS WITH PROCESSORS Univ of California, La Jolla | Zaner Sadik | N 36 31/12/92 \$85,552 | CRAIG 93-NE-147 | |
| (CASERT-92) GRADUATE STUDENT SUPPORT FOR RESEARCH IN 3-D OPTICAL DISKS California Institute of Technology | Zalitis Demetri | N 36 31/12/92 \$105,315 | CRAIG 93-NE-148 | |
| (CASERT-92) ARRAYS OF EFFICIENT ENTRY-ENTRY MODULATORS FOR OPTICAL PROCESSING Univ of California, Santa Barbara | Zoldren Larry | N 36 31/12/92 \$137,128 | CRAIG 93-NE-149 | |

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| CAASERT-32) STUDY OF ELECTRON PHYSICS IN CROSSED FIELD AMPLIFIERS Northeastern University | Chen | N 36 31/12/92 \$239,735 | BARKER 93-NE-150 | |
| CAASERT-32) OPTOELECTRONIC IMPLEMENTATION OF WDM NETWORK PROTOCOLS Univ of North Carolina | Krabbeley | N 36 31/12/92 \$101,132 | CRAIG 93-NE-151 | |
| CAASERT-32) DEVELOPMENT OF LONG WAVELENGTH MODULATORS ON GaAs FOR VERTICALLY-ACCESSED CIRCUITS Univ of California, La Jolla | Esenar | N 36 31/12/92 \$93,300 | CRAIG 93-NE-152 | |
| CAASERT-32) NOVEL SCHEME FOR AN OPTICAL TRANSISTOR Univ of Central Florida | Stegeman | N 36 31/12/92 \$167,429 | CRAIG 93-NE-153 | |
| CAASERT-32) RESEARCH IN MICRO-CAVITY SURFACE EMITTING LASER DIODE Univ of California, Berkeley | Liu | N 36 31/12/92 \$160,474 | CRAIG 93-NE-154 | |
| CAASERT-32) RESEARCH IN MICRO-CAVITY SURFACE EMITTING LASER DIODES Univ of California, Berkeley | Smith | N 36 31/12/92 \$160,474 | CRAIG 93-NE-155 | |
| CAASERT-32) DEVELOPMENT OF FREE-SPACE OPTOELECTRONIC NEURAL SYSTEMS BASED ON HYBRID SOA/PLZT TECHNOLOGY Univ of California, La Jolla | Esenar | N 36 31/12/92 \$85,552 | CRAIG 93-NE-156 | |

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| ADAPTIVE ESTIMATION APPROXIMATION OF CONTINUOUSLY VARYING SPECTRAL DENSITY FUNCTIONS WITH APPLICATION TO AIRBORNE RADAR Texas Tech University | Erol | N 11 07/10/92 \$101,900 | A BOLAND 93-MI-001 | \$101,900 01/10/92 \$101,900 |
| VIROUSMAL RNA PROSES FOR JREAPLASMA JREALYTICUM Univ of Scranton | Delvecchio | N 08 08/10/92 \$68,321 | A BOLAND 93-MI-002 | \$68,321 01/10/92 \$68,321 |
| OPTICAL STUDIES OF HIGH TEMPERATURE SUPERCONDUCTORS Massachusetts Institute of Technology | Gene | N 04 08/10/92 \$13,900 | A BOLAND 93-MI-003 | \$13,900 01/10/92 \$13,900 |
| A NOVEL METHOD FOR THE PRODUCTION OF CONDUCTIVE LAYERS IN INGERP2 Univ of Cincinnati | Kesel | N 09 15/10/92 \$75,001 | A BOLAND 93-MI-004 | \$75,001 01/10/92 \$75,001 |
| ALL HIGH-TO SUPERCONDUCTOR-INSULATOR-SUPERCONDUCTOR STRUCTURES Massachusetts Institute of Technology | Paul | R 05 23/10/92 \$16,204 | A BOLAND 93-MI-005 | \$16,204 01/10/92 \$16,204 |
| MIDBAND ANTENNA ARRAYS - AN ARRAY OF SLEEVE MONOPOLES OVER A GROUNDPLANE Univ of New Hampshire | Kandagunta | R 10 23/10/92 \$28,004 | A BOLAND 93-MI-006 | \$28,004 01/10/92 \$28,004 |
| A STUDY OF AMORPHOUS & GLASSY MATERIALS WITH POSSIBLE APPLICATION TO HIGH TEMPERATURE SUPERCONDUCTORS Forrester Polytechnic Institute | Klein | R 03 25/10/92 \$27,206 | A BOLAND 93-MI-007 | \$27,206 01/10/92 \$27,206 |
| REDUCED ORDER H-INFINITY COMPENSATOR DESIGN Washington State University | Hsu | R 03 02/11/92 \$25,726 | A BOLAND 93-MI-008 | \$25,726 01/10/92 \$25,726 |
| MODELING FOR HIGH VOLTAGE SYSTEM IN THE SPACE ENVIRONMENT Massachusetts Institute of Technology | Hastings | N 12 03/11/92 \$90,964 | A BOLAND 93-MI-009 | \$90,964 01/07/93 \$90,964 |

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| PERFORMANCE STUDY OF ADAPTIVE FILTERING WITH EMBEDDED ROBUST CFAR IN NONHOMOGENEOUS ENVIRONMENT Syracuse University | Wang Hong | N 12 24/11/92 \$66,556 | A BOLAND 93-NI-010 | \$54,995 01/12/92 \$66,556 |
| MICROWAVE EFFECTS IN HIGH TEMPERATURE SUPERCONDUCTING VJCO THIN FILM DEVICES AND JOSEPHSON JUNK JUNCTIONS Northeastern University | Jiang Hua | N 12 24/11/92 \$49,720 | A BOLAND 93-NI-011 | \$45,576 01/01/93 \$49,720 |

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| COMPUTATIONAL VISION BASED ON NEUROBIOLOGY | | | | |
| SPIE - International Soc for Optical Enginng | Montonve | N 09 01/10/92 \$20,000 | TANGNEY 93-NL-001 | |
| AUDITORY PATTERN PERCEPTION AND GROUP SIGNAL DETECTION | | | | |
| Univ of Florida | Sorkin | N 48 31/10/92 \$419,650 | TANGNEY 93-NL-002 | |
| VISUAL PERCEPTION: COMPUTATION AND PSYCHOPHYSICS | | | | |
| Univ of Minnesota | Knill | N 06 01/10/92 \$9,982 | A TANGNEY 93-NL-003 | \$9,982 01/01/93 \$9,982 |
| INFORMATION CONTENT OF THE OBSERVATIONS FROM THE SPECIAL SENSOR MI CROWAVE/TEMPERATURE-2 | | | | |
| Texas A and M Research Foundation | Albrecht | N 36 02/10/92 \$254,243 | STOBIE 93-NL-004 | |
| NUMERICAL COMPUTATION OF THE COMPLETE SCATTERING MATRIX AND SIMULA TION OF THE HETERODYNE POLARIMETRIC TECHNIQUE | | | | |
| Catholic University of America | Herbert | N 36 02/10/92 \$213,162 | STOBIE 93-NL-005 | |
| THE PRECIPITATION OF HIGH ENERGY ELECTRONS INTO THE ATMOSPHERE | | | | |
| Lockheed Missiles & Space Co Inc | Isaiah | N 36 02/10/92 \$240,000 | STOBIE 93-NL-006 | |
| AN INFORMATIONAL APPROACH TO SKILL TRANSFER | | | | |
| Univ of Illinois | Lintern | N 36 02/10/92 \$285,385 | TANGNEY 93-NL-007 | |
| PERCEPTUAL CONSTRAINTS IN UNDERSTANDING PHYSICAL DYNAMICS | | | | |
| Univ of Virginia | Proffitt | N 60 15/10/92 \$762,866 | TANGNEY 93-NL-008 | |
| RE-EVALUATION OF EVASION POSSIBILITIES FOR JET-POWERED NUCLEAR TESTE RS IN THE FORMER SOVIET UNION AND IN KEY COUNTRIES THAT MAY TEST | | | | |
| Colorado University | Lynn | N 24 15/10/92 \$289,099 | DICKINSON 93-NL-009 | |

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| PHASE-SHIFTING EFFECT OF LIGHT AND ACTIVITY ON THE HUMAN CIRCADIAN CLOCK Univ of Chicago | Van Cauter Eve | R 12 22/10/92 \$157,747 | A HADDAD 93-NL-010 | \$150,000 01/03/93 \$150,000 |
| THE ROLE OF NEAR-SOURCE PHENOMENOLOGY ON REGIONAL SEISMIC OBSERVAT IONS Southern Methodist University | Staud Brian | N 24 02/11/92 \$153,925 | A DICKINSON 93-NL-011 | \$94,586 01/02/93 \$153,925 |
| COMPLEX OBJECT AND SCENE PERCEPTION Michigan State University | Henderson John | N 36 05/11/92 \$287,078 | TANGNEY 93-NL-012 | |
| READING: INTERACTION WITH MEMORY Northwestern University | McKoon Gail | R 36 05/11/92 \$252,126 | TANGNEY 93-NL-013 | |
| REMOTE SENSING OF PRECIPITATION AND ELECTRIFICATION WITH A DUAL- POLARIZATION, COHERENT, PULSED RADAR SYSTEM New Mexico Institute of Mining and Tech | Krenbiel Paul | R 06 06/11/92 \$100,000 | A STOBIE 93-NL-014 | \$100,000 15/01/93 \$100,000 |
| DEVELOPING GUIDED SEARCH 3.0: THE NEXT GENERATION OF A MODEL OF VISUAL SEARCH Brigham & Women's Hospital | Wolfe Jeremy | N 36 06/11/92 \$316,376 | TANGNEY 93-NL-015 | |
| THE CENTRAL EXECUTIVE COMPONENT OF WORKING MEMORY ARC Applied Psychology Unit | Baddeley Alan | R 36 06/11/92 \$350,846 | TANGNEY 93-NL-016 | |
| COGNITION AND THE BRAIN: CORTICAL ACTIVITY ASSOCIATED WITH COGNITIVE TASKS New York University | Kaufman Lloyd | N 36 06/11/92 \$82,826 | TANGNEY 93-NL-017 | |
| INDIVIDUAL DIFFERENCES IN EXPLICIT AND IMPLICIT MEMORY Univ of Texas | Young Robert | R 16 07/11/92 \$49,449 | TANGNEY 93-NL-018 | |

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| PERCEPTION WITHOUT ATTENTION | WACC | N 36 09/11/92 \$658,575 | TANGNEY 93-NL-019 | |
| New School for Social Research | | | | |
| SPATIAL LEARNING AND COGNITIVE MAPPING: A NEURAL NETWORK APPROACH | Schwartz | N 36 09/11/92 \$393,952 | TANGNEY 93-NL-020 | |
| Columbia College | | | | |
| DEMODULATION PROCESSES IN AUDITORY PERCEPTION | Feth | R 36 09/11/92 \$496,315 | TANGNEY 93-NL-021 | |
| Ohio State Univ Research Foundation | | | | |
| SHAPE RECOGNITION AND FIGURE-GROUND ORGANIZATION: THE SHARP MODEL OF FIGURE-GROUND ORGANIZATION | Peterson | N 12 10/11/92 \$32,387 | A TANGNEY 93-NL-022 | \$32,387 01/11/92 \$32,387 |
| Univ of Arizona | | | | |
| ALT-AZ SURVEYING: SENSOR EVALUATION: PLUTO AND CARSON | Carroll | N 12 13/11/92 \$300,000 | A R400SKI 93-NL-023 | \$300,000 01/03/93 \$300,000 |
| Univ of Arizona | | | | |
| SITUATIONAL AWARENESS FOR COMPLEX SYSTEM OPERATIONS | Willson | N 12 13/11/92 \$14,000 | A TANGNEY 93-NL-024 | \$10,000 01/02/93 \$10,000 |
| Univ of Central Florida | | | | |
| CELLULAR INTERACTIONS IN THE SUPRACORTICAL NUCLEUS | van den Pol | R 36 19/11/92 \$634,380 | A H40040 93-NL-025 | \$210,877 01/05/93 \$634,380 |
| Fala University School of Medicine | | | | |
| EEG PATTERN RECOGNITION OF INDIVIDUAL DIFFERENCES IN COGNITIVE ABILITIES | Levins | R 36 20/11/92 \$599,399 | TANGNEY 93-NL-026 | |
| Sae Technology, Inc. | | | | |
| COGNITIVE FACTORS IN AUTOMATED INSTRUCTION FOR INDIVIDUALS AND GROUPS | Shedden | N 12 20/11/92 \$77,777 | TANGNEY 93-NL-027 | |
| Texas A and M University | | | | |

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| SORDON RESEARCH CONFERENCE ON CHRONOPHYSIOLOGY Univ of Mass Medical Center | Schwartz William | N 12 23/11/92 \$6,000 | HADDAD 93-NL-028 | |
| THE ROLES OF RELATIVE DISPARITY AND VERGENCE IN THE PERCEPTION OF INCLINED SURFACES Yale University | Howard Tom | N 36 23/11/92 \$309,132 | COLLINS 93-NL-029 | |
| INDIVIDUAL DIFFERENCES IN SPATIAL DISORIENTATION AND PERCEPTUAL AD APTATION Essex Corporation | Kennedy Robert | N 36 23/11/92 \$326,581 | COLLINS 93-NL-030 | |
| REDUCTION OF NAUSEA AND DISORIENTATION WHEN EXPOSED TO A MOVING VI SUAL FIELD St Michael Hospital | Johnson Walter | N 24 30/11/92 \$157,000 | COLLINS 93-NL-031 | |
| ANALYSIS OF MESOSPHERIC WINDS AND WAVES Iowa State University | Miller Kent | N 12 30/11/92 \$61,570 | STOBIE 93-NL-032 | |
| CELLULAR NEUROPHYSIOLOGY OF THE RAT SUPRACHIASMATIC NUCLEUS: ELECT RICAL PROPERTIES, NEUROTRANSMISSION, & MECHANISMS OF SYNCHRONIZA tion Colorado State University | Judek F. Edward | R 36 30/11/92 \$744,632 | HADDAD 93-NL-033 | \$125,000 01/03/93 \$125,000 |
| CONTROL OF CIRCADIAN BEHAVIOR BY TRANSPLANTED SUPRACHIASMATIC NUCLEI Univ of Virginia | Wankner Michael | R 12 03/12/92 \$137,730 | HADDAD 93-NL-034 | |
| STOP-DOWN INFLUENCES ON VISUAL PROCESSING: PSYCHOPHYSICS AND COMP UTATION Massachusetts Institute of Technology | Richards William | R 36 04/12/92 \$311,736 | TANGMEY 93-NL-035 | |
| ALDEHYDE PRODUCTS OF LIPOID PEROXIDATION IN THE RETINA GENERATED BY ENVIRONMENTAL TOXINS Kentucky State University | van Kulk Frederick | N 36 04/12/92 \$355,945 | KOZUMBO 93-NL-036 | |

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| DIMENSIONALITY REDUCTION FOR VISUALIZATION AND INTERPRETATION OF M ULTRAVIOLET SPECTROSCOPICAL DATA OF VARYING PHYSICAL & TEMPORAL-- Eastern Washington University | Landis | R 36 04/12/92 \$429,782 | KOZUMBO 93-NL-037 | |
| IN VIVO AND IN VITRO ASSESSMENT OF THE HEPATOTOXICITY OF PERHALOGE NATED ALKANES Univ of Surrey | Gibson | N 36 04/12/92 \$929,782 | KOZUMBO 93-NL-038 | |
| WAX CHARACTERIZATION OF POLYMERS FORMED IN DIARYLIZING MIXTURES OF LUMINOL AND 3-AMINO-L-TYROSINE Southeastern Oklahoma St U-Phys Sci Dpt | Wright | R 12 04/12/92 \$47,644 | KOZUMBO 93-NL-039 | |
| MOLECULAR MECHANISMS OF BIOSYNTHESIS OF METAL-BINDING PHYTOCHELATE S Univ of California, Riverside | Mehra | N 36 04/12/92 \$368,593 | KOZUMBO 93-NL-040 | |
| DEGRADATION OF PENTACHLOROPHENYL IN PSEUDOMONAS SP. RA-2 AND PHODOCOCUS CHLOROPHENOLICUS: PATHWAYS AND GENETICS Univ of Colorado | Cooley | N 36 04/12/92 \$449,222 | KOZUMBO 93-NL-041 | |
| REACTIVE OXYGEN SPECIES, STRESS PROTEIN, PROTEIN KINASE C AND THE IN THE TOXICITY OF POLYHALOGENATED CYCLIC HYDROCARBONS (PCH) Creighton University | Stens | R 36 04/12/92 \$321,732 | KOZUMBO 93-NL-042 | |
| MICROBIAL DETOXIFICATION OF CARBONIUM Univ of Kentucky | Mans | N 36 08/12/92 \$363,985 | KOZUMBO 93-NL-043 | |
| VENT-GENERATION AUTOMATED COGNITIVE SKILL TRAINING: PROBLEMS, SOL -S, AND APPROACHES Research Development Corporation | Laddo | N 12 16/12/92 \$199,034 | TANGMEY 93-NL-044 | |
| VISUALLY GUIDED NAVIGATION Univ of California, Berkeley | Jones | N 36 17/12/92 \$639,551 | COLLINS 93-NL-045 | |

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|--|------------------------|-----------------------------------|---|-----------------------------------|
| SPACE PERCEPTION WITH NORMAL AND PROSTHETIC VISION Cufgers - The State University | Radami Iitznak | N 36 18/12/92 \$312,209 | COLLINS 93-NL-046 | |
| VISUO-OULAR PERFORMANCE DURING VESTIBULAR STIMULATION Univ of Pittsburgh | Joseph M. R. Furman | N 36 18/12/92 \$537,017 | COLLINS 93-NL-047 | |
| EXTRATHALAMIC MODULATION OF CORTICAL RESPONSIVENESS Univ of California, San Diego | Scott Stephen | N 36 21/12/92 \$676,976 | HADDOAD 93-NL-048 | |
| THE BIOLOGY AND CHEMISTRY OF VISION Stanford University | John Lisman | N 12 22/12/92 \$10,000 | TANGMEY 93-NL-049 | |
| LASERT-92 HIGH-ENERGY ELECTRON BEAM-INDUCED IONOSPHERIC MODIFICATION EXPERIMENTS Univ of Michigan | Brian Balchrist | N 36 23/12/92 \$220,135 | STOBIE 93-NL-050 | |
| LASERT-92 CHARACTERISTICS AND PHYSICS OF RAPIDLY INTENSIFYING TROPICAL CYCLONES Colorado State University | William Gray | N 36 23/12/92 \$97,565 | STOBIE 93-NL-051 | |
| LASERT-92 AUGMENTATION OF THE VECTOR SPHERICAL HARMONIC MODEL Univ of Michigan | Timothy Kalleen | N 36 23/12/92 \$217,820 | STOBIE 93-NL-052 | |
| LASERT-92 FRONT-BOUNDARY LAYER MODELS FROM STORM-FEST OBSERVATIONS Univ of Colorado | William Blumen | N 24 23/12/92 \$72,908 | STOBIE 93-NL-053 | |
| NEURAL NETWORK CORRELATES OF CONTEXT-DEPENDENT PERCEPTUAL PHENOMENA Univ of Mass Medical Center | Daniel Collen | N 36 23/12/92 \$1,348,274 | TANGMEY 93-NL-054 | |

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| IMAGE APPEARANCE AND IMAGE QUALITY PHENOMENA Scheepers Eye Research Institute | Arend | N 35 23/12/92 \$1,348,274 | TANGNEY 93-NL-055 | |
| ASASRT-92 - CHROMOSPHERIC ACTIVITY IN ALGOL BINARIES Univ of Virginia | Richards | N 36 23/12/92 \$1 | RADOSKI 93-NL-056 | |
| ASASRT-92 - THE SOLAR ACTIVITY CYCLE New Jersey Institute of Technology | Goode | N 36 24/12/92 \$170,443 | RADOSKI 93-NL-057 | |
| ASASRT-92 - CHAOTIC DYNAMICS OF THE SOLAR CYCLE Columbia University | Spiegel | N 35 24/12/92 \$247,348 | RADOSKI 93-NL-058 | |
| ASASRT-92 - HIGH ENERGY HEAVY ION ENVIRONMENT MEASURED IN THE ERRES MISSION Univ of Chicago | Simpson | N 36 24/12/92 \$130,006 | RADOSKI 93-NL-059 | |
| ASASRT-92 - MAGNETOSPHERIC STRUCTURE & DYNAMICS: A MULTISATELLITE APPROACH Boston University | W. Jeffrey Hughes | N 36 24/12/92 \$226,262 | RADOSKI 93-NL-060 | |
| ASASRT-92 - THE USE OF AF CLOUD DATA TO EVALUATE & IMPROVE CLOUD FORECAST & PARAMETERIZATION IN MESOSCALE METEOROLOGICAL MODELS State University of New York | Chris Galcer | N 36 24/12/92 \$107,311 | STOBIE 93-NL-061 | |
| ASASRT-92 SOURCE MECHANISMS AND RADIO EFFECTS OF IONOSPHERIC PLASMA DISTURBANCES Boston University | Lee Min-Chang | N 36 24/12/92 \$190,725 | STOBIE 93-NL-062 | |
| ASASRT-92 - NONLINEAR DYNAMICS APPLIED TO ATMOSPHERIC PREDICTION Florida State University | Barclon Albert | N 36 24/12/92 \$80,718 | STOBIE 93-NL-063 | |

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| ASERT-92 DOES THE NATURE OF INTERACTIVE TOXICITY DEPEND ON THE LEVEL OF EFFECT? Yrexel University | Yass Charles | N 36 30/12/92 \$51,981 | KOZUMBO 93-NL-064 | |
| ASERT-92 OBSERVATIONAL ANALYSIS OF THE ORIGIN OF NON-DOUBLE COUPLED SEISMIC SOURCES Univ of Texas | Fronlich Clifford | N 36 30/12/92 \$115,451 | DICKINSON 93-NL-065 | |
| ASERT-92 PERCEPTION OF AUDITORY EVENTS: ATTENTIONAL LIMITATIONS Purdue University | Pastore Richard | N 36 30/12/92 \$102,525 | TANCNEY 93-NL-066 | |
| ASERT-92 TRAINING SITUATION AWARENESS IN VIRTUAL ENVIRONMENTS Univ of Washington | Farness Thomas | N 36 30/12/92 \$181,691 | TANCNEY 93-NL-067 | |
| ORGANIZATION OF THE HUMAN CIRCAIDIAN SYSTEM Univ of Pittsburgh | Moore Robert | R 36 30/12/92 \$605,165 | HADDAD 93-NL-068 | |
| ASERT-92 ACOUSCALE NUMERICAL PREDICTION OF LIGHTNING Colorado State University | Cotton William | N 36 31/12/92 \$115,300 | STOBIE 93-NL-069 | |
| ASERT-92 INVESTIGATION OF RADIATION BELT ELECTRONS AND LOSS OF RIN CURRENT IONS Dartmouth College | Hudson Mary | N 36 31/12/92 \$192,880 | RAOOSKI 93-NL-070 | |
| ASERT-92 PREDICTION OF CLOUD COVER WITH A GLOBAL MODEL Florida State University | Krishnaswami T | N 36 31/12/92 \$72,276 | STOBIE 93-NL-071 | |
| ASERT-92 AUGMENTATION OF RESEARCH TRAINING IN CHRONOBIOLOGY: REGULATION OF THE MAMMALIAN CIRCAIDIAN CLOCK BY NEUROTRANSMITTERS Univ of Illinois | Billette Martha | N 36 31/12/92 \$132,322 | HADDAD 93-NL-072 | |

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| ASERT-92 RESEARCH TRAINING FOR UNDERSTANDING THE FATE OF ENVIRONMENTAL POLLUTANTS Cornell University | Madson Eugene | N 36 31/12/92 \$215,327 | KOZUMBO 93-NL-073 | |
| ASERT-92 AN INEXPENSIVE MODEL SYSTEM FOR INSITU EVALUATIONS OF ECOLOGICAL RISK IN PETROCHEMICAL-CONTAMINATED TERRESTRIAL ENVIR. Delaware State University | Locheiller Robert | N 36 31/12/92 \$14,121 | KOZUMBO 93-NL-074 | |
| ASERT-92 INTERDISCIPLINARY TRAINING IN VISUAL SCIENCES Rutgers - The State University | Kowler Eileen | N 36 31/12/92 \$305,877 | COLLINS 93-NL-075 | |
| ASERT-92 A SYSTEMATIC METHOD OF UNCERTAINTY REDUCTION FOR COMPLEX SOUND PERCEPTION Indiana University/Bryan Hall | Watson Charles | N 36 31/12/92 \$66,636 | TANGNEY 93-NL-076 | |
| ASERT-92 WHISTLER WAVE PHENOMENA: EXPERIMENT AND THEORY Columbia University | Snattscarjee Amitava | N 36 31/12/92 \$229,975 | RADOSKI 93-NL-077 | |
| ASERT-92 GRADUATE TRAINING IN RESEARCH ON INDIVIDUAL DIFFERENCES IN SKILLED PERFORMANCE Univ of Utah | Woltz Dan | N 36 31/12/92 \$97,646 | TANGNEY 93-NL-078 | |
| ASERT-92 AUGMENTATION PROPOSAL FOR DEVELOPMENT OF HYPEROIDS/ISOTI ON AND INVERSE METHODS Boston University | Sandra Guido v. | N 36 31/12/92 \$160,522 | STOBIE 93-NL-079 | |
| ASERT-92 DIGITAL PLANIMETRIC MAP OF COLIV AFB Univ of Florida | Saith Scot | N 24 31/12/92 \$50,000 | KOZUMBO 93-NL-080 | |

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| FORWARD TECHNOLOGICAL APPLICATION OF NON-NEWTONIAN FLUIDS & COMPLEX MATERIALS/MODELLING, SIMULATION, & DESIGN OF EXPERIMENTS Ohio State Univ Research Foundation | M. | N 36 07/10/92 \$275,564 | NACHMAN 93-NM-001 | \$240,912 30/11/92 \$240,912 |
| SURFACE MODELING AND FAST PDE SOLVERS IN MANUFACTURING | Dahlberg | N 36 08/10/92 \$717,939 | A GLASSMAN 93-NM-003 | \$112,140 01/03/93 \$289,166 |
| HIGH PERFORMANCE COMPUTING (HPC) METHODS AND SYSTEMS FOR PARTIAL DIFFERENTIAL EQUATIONS Purdue Research Foundation | Rice | R 24 08/10/92 \$142,133 | A GLASSMAN 93-NM-004 | \$239,000 30/11/92 \$693,000 |
| FLOW AND CYCLE COVERS-RESEARCH IN GRAPH THEORY | Lai | N 24 08/10/92 \$77,391 | GLASSMAN 93-NM-005 | \$78,994 30/11/92 \$262,981 |
| MATHEMATICAL MODELING FOR SIMULATION AND CONTROL OF SEMICONDUCTOR PROCESSING Arizona State University | Crouen | N 36 09/10/92 \$693,000 | A JACOBS 93-NM-006 | \$245,000 30/11/92 \$738,000 |
| DEVELOPING MODEL BASED CONTROL STRATEGIES FOR HOT ISOSTATIC PRESSING Wayne State University | Li | N 36 09/10/92 \$262,381 | A JACOBS 93-NM-007 | \$239,048 15/04/93 \$360,982 |
| NUMERICAL MODELING FOR CRYSTAL GROWTH | Strain | N 36 14/10/92 \$104,330 | A JACOBS 93-NM-008 | \$32,460 01/07/93 \$104,330 |
| ADVANCED MATHEMATICAL MODELS FOR STRUCTURAL SYSTEMS Washington University | Szabo | N 36 15/10/92 \$738,000 | A JACOBS 93-NM-009 | \$245,000 30/11/92 \$738,000 |
| AN INTERACTIVE, INTELLIGENT TUTORING SYSTEM FOR PREDICTION TASKS Univ of Texas | Porter | N 36 15/10/92 \$359,985 | A WAKSMAN 93-NM-010 | \$239,048 15/04/93 \$360,982 |

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| COMPUTATIONAL METHODS FOR PDES IN FLOW CONTROL, SUPERCONDUCTIVITY FLUID FLOWS, AND OTHER APPLICATIONS Virginia Polytechnic Inst & State Univ | Gundaburger | R 12 19/10/92 \$110,000 | A JACOBS 93-NM-011 | \$110,000 01/12/92 \$110,000 |
| APPLICATIONS OF SIGNAL PROCESSING, FAST ALGORITHMS, AND MULTIVARIABLE CONTROL TO SEMICONDUCTOR MANUFACTURING Stanford University | Thomas | N 36 23/10/92 \$2,736,772 | A JACOBS 93-NM-012 | \$888,854 01/01/93 \$2,536,772 |
| STUDY OF COMBUSTION INSTABILITIES IN STAGNATION POINT FLOWS Old Dominion University | Jackson | N 24 26/10/92 \$44,045 | NACHMAN 93-NM-013 | |
| PARALLEL SOLUTION OF LARGE-SCALE NONLINEAR OPTIMIZATION RESEARCH Univ of Minnesota | Josen | N 08 27/10/92 \$49,573 | A GLASSMAN 93-NM-014 | \$49,573 01/02/93 \$49,573 |
| TRANSIENT CHAOS IN SPACECRAFT ATTITUDE MANEUVERS DUE TO A CLASS OF NON-HAMILTONIAN PERTURBATIONS Univ of Wisconsin | Kanner | N 36 27/10/92 \$190,150 | NACHMAN 93-NM-015 | |
| DIAGNOSTIC TOOLS & ALGORITHMS FOR MINIMUM COST FLOWS MODELS Massachusetts Institute of Technology | Orlin | R 12 27/10/92 \$93,006 | GLASSMAN 93-NM-016 | |
| INVERSE PROBLEMS FOR SEMICONDUCTOR EQUATIONS East Virginia University | Fang | N 36 27/10/92 \$79,168 | NACHMAN 93-NM-017 | |
| SOME ISSUES IN NONLINEAR PROGRAMMING ALGORITHMS FOR PROBLEMS WITH SIMULATION CONSTRAINTS Ohio University | Jennils, Jr. | N 24 27/10/92 \$300,000 | A GLASSMAN 93-NM-018 | \$150,000 01/01/93 \$300,000 |
| NUMERICAL METHODS FOR SIMULTANEOUSLY PERTURBED DIFFERENTIAL EQUATIONS WITH APPLICATIONS Pennsylvania Polytechnic Institute | Flisberg | N 12 28/10/92 \$90,000 | A JACOBS 93-NM-019 | \$90,000 01/04/93 \$90,000 |

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| RECOVERY OF THE SINGULARITIES OF A FUNCTION FROM THE SINGULARITIES OF ITS RADON TRANSFORM Kansas State University | Ross Alexander | N 36 29/10/92 \$167,727 | NACHMAN 93-NM-020 | |
| CRACK PROPAGATION IN LINEAR & NONLINEAR VISCOELASTIC MATERIAL | Dalton Jay | N 36 03/11/92 \$81,000 | A NACHMAN 93-NM-021 | \$25,000 01/06/93 \$81,000 |
| DIRECT & INVERSE SCATTERING IN ACOUSTICS & ELECTROMAGNETICS | Valenberg Soris | N 24 03/11/92 \$112,083 | NACHMAN 93-NM-022 | |
| SPEECH SIGNAL PROCESSING VIA FOURIER-BESSEL SERIES EXPANSION | Schroeder James | N 12 03/11/92 \$67,470 | SJOGREN 93-NM-023 | |
| ON SOME CONTROL PROBLEMS OF MIXING IN A FLOW | Stevadi Masrollah | N 36 04/11/92 \$139,719 | JACOBS 93-NM-024 | |
| ROBUST CONTROL: A TIME-DOMAIN QFT BASED ON FIXED POINTS & HOMOTOPIC INVARIANCE IN L | Barnard Robert | N 24 04/11/92 \$112,659 | JACOBS 93-NM-025 | |
| LOW ORDER H-INFINITY CONTROL LAW SYNTHESIS VIA GENERALIZED BOUNDED REAL LEMMA | Hsu Chin | N 36 04/11/92 \$129,585 | JACOBS 93-NM-026 | |
| CONCURRENT ADAPTIVE METHODS FOR REACTION-DIFFUSION SYSTEMS | Van de Velde Eric | N 36 04/11/92 \$642,525 | JACOBS 93-NM-027 | |
| MULTIPROCESSOR FILE SYSTEMS | Kotz David | N 36 04/11/92 \$153,420 | SUDDARTH 93-NM-028 | |

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| RESEARCH INITIATIVE IN INTELLIGENT TUTORING SYSTEMS Univ of Massachusetts | Woolf | N 36 05/11/92 \$1,542,711 | WAKSMAN 93-NM-029 | |
| ON THE DESIGN & ANALYSIS OF NETWORKS WITH NODE FAILURES Univ of Texas | Jaillet | N 24 05/11/92 \$1 | GLASSMAN 93-NM-030 | |
| JERUSALEM COMBINATORICS-93 CONFERENCE Arizona State University | Barcelo | N 12 05/11/92 \$18,330 | GLASSMAN 93-NM-031 | |
| STATISTICAL MODELS & INFERENCES FOR RELIABILITY GROWTH, ACCELERATED LIFE TESTS & MULTICOMPONENT CENSORED DATA Univ of Wisconsin | Johnson | N 36 05/11/92 \$235,083 | SJOGREN 93-NM-032 | |
| WORKSHOP ON NEW OPTIMIZATION TECHNIQUES FOR LARGE COMPOUNDS Iowa State Univ of Science and Tech | Schmidt | N 12 10/11/92 \$25,600 | A GLASSMAN 93-NM-033 | \$25,600 01/01/93 \$25,600 |
| MATHEMATICAL ASPECTS OF HYPERSONIC BOUNDARY LAYERS & JETS City College - CUNY | Papageorgiou | N 36 10/11/92 \$151,169 | NACHMAN 93-NM-034 | |
| IN-SERVICE BIT-ERROR-RATE MEASUREMENT IN COMMUNICATION NETWORKS New Mexico Highlands University | Zillic | N 24 10/11/92 \$478,624 | SJOGREN 93-NM-035 | |
| INTEGER NETWORKS WITH SIDE CONSTRAINTS: ALGORITHMS AND APPLICATIONS Southern Methodist University | Kennington | R 12 12/11/92 \$60,000 | A GLASSMAN 93-NM-036 | \$60,000 01/01/92 \$60,000 |
| SELF-SIMILARITY IN TRANSIENT STIMULATED RAMAN SCATTERING Univ of Maryland, Baltimore County | Menyuk | N 12 17/11/92 \$1,000 | NACHMAN 93-NM-037 | |

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| ESTIMATION WITH MULTISENSOR-MULTISCAN DETECTION FUSION Univ of Connecticut | Gar-Shaloe Yaakov | R 12 17/11/92 \$54,957 | A GLASSMAN 93-NM-038 | \$27,478 01/03/93 \$54,957 |
| STRUCTURAL & SYSTEM THEORETICAL STUDY ON STATIC & TEMPORAL NEURAL MODELS Princeton University | Kung Sun-Yuang | N 24 18/11/92 \$326,835 | SUDDARTH 93-NM-039 | |
| THE NORTH AMERICAN MEETING OF NEW RESEARCHERS IN STATISTICS AND PROBABILITY Institute of Mathematical Statistics | Volkm Deborah | N 12 24/11/92 \$30,750 | SJOGREN 93-NM-041 | |
| EVOLVING NEURAL NETWORKS FOR NONLINEAR CONTROL George Mason University | Ylntz Kenneth | N 36 24/11/92 \$389,074 | A SUDDARTH 93-NM-042 | \$129,750 01/03/93 \$389,074 |
| SOLVING INTEGER PROGRAMMING PROBLEMS USING AN INTEGRATED POINT METHOD WITHIN A BRANCH-6-CUT FRAMEWORK Massachusetts Institute of Technology | Mitchell John | N 36 24/11/92 \$216,162 | GLASSMAN 93-NM-043 | |
| LEARNING MANEUVERS USING NEURAL NETWORK MODELS Massachusetts Institute of Technology | Atkeson Christopher | N 36 24/11/92 \$497,812 | A SUDDARTH 93-NM-044 | \$159,473 01/04/93 \$497,812 |
| REINFORCEMENT LEARNING FOR NEURAL NETWORK CONTROL OF INTELLIGENT AIRCRAFT VEHICLES Oregon Graduate Institute | Woody John | N 36 24/11/92 \$466,005 | SUDDARTH 93-NM-045 | |
| GLOBAL OPTIMIZATION OF CONSTRAINED NONLINEAR FUNCTIONS Univ of North Carolina | Macnabedicz Zbigniew | N 36 24/11/92 \$154,597 | GLASSMAN 93-NM-046 | |
| BROAD-BASED HIGH-FREQUENCY JET ENGINE CONTROL Georgia Institute of Tech | Watt Carl | N 36 24/11/92 \$765,006 | A JACOBS 93-NM-047 | \$255,002 01/10/93 \$765,006 |

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| OPTIMIZATION PROBLEMS IN MULTISENSOR/MULTITARGET TRACKING Colorado State University | Poore Aubrey | R 24 27/11/92 \$106,275 | A GLASSMAN 93-NM-048 | \$49,430 01/02/93 \$106,057 |
| NONSMOOTH OPTIMIZATION ALGORITHMS AND SOFTWARE TOOLS Univ of California, Berkeley | Polak Elijan | N 12 27/11/92 \$75,000 | A JACOBS 93-NM-049 | \$75,000 01/03/93 \$75,000 |
| THEORETICAL AND COMPUTATIONAL INVESTIGATION OF NONLINEAR DYNAMICAL AND CHAOTIC PROPERTIES OF PLASMAS Stanpton University | Variable William | N 36 30/11/92 \$510,000 | NACHMAN 93-NM-050 | |
| STABILITY OF DYNAMICAL SYSTEMS IN THE PRESENCE OF NOISE Northwestern University | Pinsky Mark | N 12 30/11/92 \$15,000 | A SJOGREN 93-NM-051 | \$15,000 07/12/92 \$15,000 |
| ADAPTIVE CONTROL OF NONLINEAR MULTIVARIABLE SYSTEMS USING NEURAL NETWORKS Yale University | Varandra Kuspati | N 36 01/12/92 \$120,000 | SUDDARTH 93-NM-052 | |
| CODING, SIGNAL DESIGN, & SIGNAL PROCESSING FOR NON-GAUSSIAN CHANNELS Princeton University | Poor H. Vincent | N 12 01/12/92 \$82,790 | SJOGREN 93-NM-053 | |
| INTERNATIONAL SYMPOSIUM ON ORDINARY DIFFERENTIAL EQUATIONS AND APPLICATIONS Eastern Michigan University | Alavi Yousef | N 12 07/12/92 \$35,635 | NACHMAN 93-NM-054 | |
| INVESTIGATIONS IN FUZZY QUANTIFICATION, USUALITY, & LIKELIHOOD Florida State University | Scheartz Daniel | N 36 07/12/92 \$188,800 | WAKSMAN 93-NM-055 | |
| INTEGRATION OF APPRENTICE & REINFORCEMENT LEARNING Univ of Massachusetts | Utgoff Paul | N 36 07/12/92 \$141,280 | WAKSMAN 93-NM-056 | |

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| CIRCUIT COVERS & INTEGER FLOWS--RESEARCH IN GRAPH THEORY West Virginia University | Zhang Cun-Quan | N 24 07/12/92 \$81,734 | GLASSMAN 93-NM-057 | |
| NONLINEAR PROBLEMS OF SOLID MECHANICS Univ of Maryland | Antean Stuart | N 36 07/12/92 \$538,187 | NACHMAN 93-NM-058 | |
| MACHINE VISION THROUGH MACHINE LEARNING George Mason University | Michalski Ryszard | R 36 07/12/92 \$938,046 | A WAKSMAN 93-NM-059 | \$300,000 01/04/93 \$938,046 |
| PHASE AND AMPLITUDE CONTROLLED NEURAL ANTENNA Florida Institute of Technology | Thursoy Michael | N 12 15/12/92 \$50,000 | A SUDDARTH 93-NM-060 | \$50,000 01/04/93 \$50,000 |
| GLOBAL BEHAVIORAL APPROACH TO ADAPTIVE NEURAL NETWORKS Univ of Massachusetts | Donahoe John | N 36 15/12/92 \$176,783 | SUDDARTH 93-NM-061 | |
| 2D HAMILTONIAN PROBLEMS IN FLUID DYNAMICS Pennsylvania Polytechnic Institute | Lia CnJan | N 48 16/12/92 \$339,426 | NACHMAN 93-NM-062 | |
| FOUNDATIONS OF COMBINATORIAL SEARCH METHODS Univ of Colorado | Glover Fred | R 07 18/12/92 \$80,040 | A GLASSMAN 93-NM-063 | \$80,040 01/06/93 \$80,040 |
| GRAY II SUPPORT FOR OTHER 2304/CS INSTRUMENTS Air Force Weapons Lab | Burnette Howard | N 12 21/12/92 \$100,000 | A JACOBS 93-NM-064 | \$100,000 01/10/92 \$100,000 |
| SOME PROBLEMS IN SURVIVAL DISTRIBUTIONS AND RELIABILITY New Jersey Institute of Technology | Shattacnarjee Manish | N 12 23/12/92 \$52,156 | SJOGREN 93-NM-065 | |

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| CHROMATIC SCHEDULING PROBLEMS Northeastern University | Mahadev | N 36 23/12/92 \$187,077 | GLASSMAN 93-NM-066 | |
| NONLINEAR INTERACTIONS OF FLUID VORTEX STRUCTURES WITH BLUFF BODIES Univ of California, San Diego | Kadake | N 24 23/12/92 \$116,200 | MACHMAN 93-NM-067 | |
| CONCEPTS, METHODS & TOOLS FOR DESIGNING DEPENDABLE DISTRIBUTED SYSTEMS Univ of California, San Diego | Cristian | N 29 23/12/92 \$324,943 | A SUDDARTH 93-NM-068 | \$206,395 01/04/93 \$324,943 |
| BISTATIC AMBIGUITY FUNCTION FOR NON-GAUSSIAN SIGNAL CONDITIONS Rand Air Development Center | Jorak | N 12 24/12/92 \$40,000 | A SJOGREN 93-NM-069 | \$40,000 01/03/93 \$40,000 |
| MULTISCALE SURVEILLANCE INFORMATION ACQUISITION AND FUSION AND FUSION Univ of Minnesota | Teetlik | R 24 29/12/92 \$148,209 | A SJOGREN 93-NM-070 | \$49,253 01/02/93 \$148,209 |
| THEORY & ALGORITHMS FOR NEURPY BASED INFERENCE Dartmouth College | George | N 36 29/12/92 \$346,086 | A SUDDARTH 93-NM-071 | \$123,496 01/04/93 \$346,086 |
| ASERT-92/MODELING OF VISCOELASTIC JETS & FIBERS: INVERSE PROBLEMS FOR MATERIAL CHARACTERIZATION Ohio State University | Gregory | N 36 30/12/92 \$52,920 | MACHMAN 93-NM-072 | |
| ASERT-92/VOID NUCLEATION & GROWTH IN NONLINEAR SOLIDS Univ of Virginia | Horgan | N 36 30/12/92 \$125,459 | MACHMAN 93-NM-073 | |
| ASERT-92/REACTIVE EXECUTION IN A COMMAND, PLANNING & CONTROL ENVIRONMENT Univ of Edinburgh | Tate | N 36 30/12/92 \$39,881 | MAKSMAN 93-NM-074 | |

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| NASERT-92/APPLICATION STUDIES IN ROBUST IDENTIFICATION/CONTROL Univ of Michigan | Khargonekar Pramod | N 36 30/12/92 \$99,231 | JACOBS 93-NM-075 | |
| NASERT-92/IMAGE COMPRESSION & WAVELET GENERATION Georgia Institute of Tech | Barber Marc | N 36 30/12/92 \$112,587 | NACHMAN 93-NM-076 | |
| NASERT-92/PHOTONIC SIGNAL PROCESSING FOR MICROWAVE & RADAR SYSTEMS Stevens Institute of Technology | Zaida Henry | N 36 30/12/92 \$109,893 | SJOGREN 93-NM-077 | |
| NASERT-92/NONLINEAR CONTROL FOR CONSTRAINED SYSTEMS Univ of Michigan | Bernstein Dennis | N 36 30/12/92 \$235,777 | JACOBS 93-NM-078 | |
| NASERT-92/QUALITATIVE AUTOMATIC INTELLIGENT MATERIAL PROCESSING Univ of Cincinnati | Garrett Patrick | N 36 30/12/92 \$172,911 | WAKSMAN 93-NM-079 | |
| MODELING NEURAL MECHANISMS OF THE CONTROL OF RESPIRATION Univ of Pennsylvania | Schaeber James | N 36 30/12/92 \$377,624 | A SUDDARTH 93-NM-080 | \$20,000 15/03/93 \$60,000 |
| A NEW METHOD FOR CONSTRUCTING ARTIFICIAL NEURAL NETS Rutgers, The State University | Stranderegan William | N 06 30/12/92 \$69,461 | A SUDDARTH 93-NM-081 | \$69,461 01/04/93 \$69,461 |
| NASERT-92/LOCATION & PROBLEMS FOR NETWORKS Rutgers - The State University | Roberts Fred | N 36 30/12/92 \$123,663 | ELASSMAN 93-NM-082 | |
| NASERT-92/COMPUTATIONAL METHODS FOR CONTROL OF NONLINEAR FLUID/STRUCTURE PROBLEMS North Carolina State University | Banks H. | N 36 30/12/92 \$179,507 | JACOBS 93-NM-083 | |

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| TITLE (FILE (CONT.) INSTITUTION | INVESTIGATOR | TYPE/MONTHS RECEIVED AMOUNT | STATUS PROGRAM MANAGER PROPOSAL # | INITIATE START DATE TOT AMT |
|---|--------------|-----------------------------------|---|-----------------------------------|
| NASERT-92/NUMERICAL METHODS FOR SINGULARLY PERTURBED DIFFERENTIAL EQUATIONS WITH APPLICATIONS Rensselaer Polytechnic Institute | Flaherty | N 36 31/12/92 \$111,415 | JACOBS 93-NM-084 | |
| NASERT-92/SIGNAL STRUCTURE METHODS FOR ROBUST INTERFERENCE REDUCTION IN AIRBORNE ANTENNA ARRAYS Stanford University | Golub | N 36 31/12/92 \$294,352 | NACHMAN 93-NM-085 | |
| NASERT-92/TECHNICAL DEVELOPMENT IN WAVELET & SPLINE TECHNIQUES Howard University | Rachael | N 36 31/12/92 \$232,700 | JACOBS 93-NM-086 | |
| NASERT-92/MODEL-BASED SEARCH Univ of Maryland | Rosenfeld | N 36 31/12/92 \$100,022 | SJOGREN 93-NM-087 | |
| NASERT-92/SOLVING FIXED-CHARGE NETWORK FLOW PROBLEMS VIA REFORMULATION STRATEGIES Clemson University | Adams | N 36 31/12/92 \$86,712 | GLASSMAN 93-NM-088 | |
| NASERT-92/STOCHASTIC LEARNING DYNAMICS & NONLINEAR DIMENSION Oregon Graduate Institute | Leon | N 36 31/12/92 \$259,688 | SUDDARTH 93-NM-089 | |
| NASERT-92/SOFTWARE FAULT-TOLERANCE IN DISTRIBUTED REAL-TIME SYSTEMS Texas Engineering Experiment Center | Pradhan | N 36 31/12/92 \$202,806 | SUDDARTH 93-NM-090 | |
| NASERT-92/REAL-TIME CONTROL OF REASONING Univ of Oregon | Ginsberg | N 36 31/12/92 \$189,586 | WAKSMAN 93-NM-091 | |
| NASERT-92/ADAPTIVE PHASED ARRAY RADAR SIGNAL PROCESSING USING PHOTOREFRACTIVE VOLUME HOLOGRAMS Univ of Colorado | Wagner | N 36 31/12/92 \$144,500 | SJOGREN 93-NM-092 | |